DEVOTED TO AGRICULTURE AND ITS KINDRED ARTS AND SCIENCES.

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JOEL NOURSE, Proprietor. Office....Quincy Hall. SIMON BROWN, Editor. FRED'K HOLBROOK, } Associate HENRY F. FRENCH, } Editors.

CALENDAR FOR DECEMBER.

THE CLOSE OF THE YEAR.

"Glad Christmas comes, and every hearth
Makes room to give him welcome now,
E'en want will dry its tears in mirth,
And crown him with a holly bough.

Though tramping 'neath a wintry sky,
O'er snowy paths and rimy stiles,
The housewife sets her spinning by,
To bid him welcome with her smiles."

CLARE'S SHEPHERD'S CALENDAR.

STERN DECEMBER closes up the train of the Months, and with it, ends the rolling Year. The Harvests are all gathered, and although the clouds long refused to shed their gladdening rains upon the parched earth, most of the crops have been sufficient, and some abundant. The hay-harvest was full; the small grains were cut short, and in many localities a failure; the potato crop plentiful, and of better quality than for several preceding years; the Indian corn crop, far short of last year, but a full three-fourths average of former years; vegetables fine, and in abundance, and fruit, with the exception of peaches, a large supply and of excellent quality. The grape crop has been plentiful, and the fruit of unusual richness and value. With a better knowledge of the means of preserving it, the grape will become one of our most wholesome and delicious winter fruits.

While the earth has generously yielded to us, and filled our garners with its fruits, the same watchful Providence that has given vitality to the minutest seed, and caused its germ to spring to the air and light, has shielded us from unseasonable heats and colds, and averted the pestilence and internal commotions which have afflicted some other nations. There is, then, every reason for grateful and happy hearts, and none for murmuring or despair. We have seen that "every thing is beautiful in his season," that every thing displays "the power and goodness of God." His Providence directs us, step by step, developing the faculties of the mind, and enlarging its power of administering to the necessities of the race. New modes of life, new comforts and occupations spring from the wonderful activity which impels our people. The language of the Shepherd Poet, which we have quoted above, would be applicable to few of our homesteads now; for the spinning *wheel* is the thing of a past age, and has sung its cheerful song in thousands of our rural homesteads for many years, but that song animates our maidens no longer; running waters and scalding vapors are now made to propel the wheels that spin the wool, the cotton and flax! All the occupations present new aspects; strange machines are in the barns, and fields, and workshops, and manufactories, saving the toil of millions of thews and sinews by an increased activity of the mind.

Urged on in the calling which we have chosen, not only by a desire to discharge a duty, but by the unnumbered charms which it presents, the year has passed rapidly and pleasantly away. Our visits to the homes of the people, and our associations through these columns have been agreeable and profitable; and we trust that these relations will long be continued with mutual advantage.

It is not so much to be desired that we shall live fast, or long, as that we shall live well; that each day shall find its duties faithfully discharged, and the mind calmly waiting either for another day of active duty, or for a suspension of the cares and amusements of life, and a summons to that wider field of action where only the culture of the nobler faculties will be required.

The pursuit of agriculture as an occupation is

eminently favorable to calm contemplation and a quiet, useful and peaceful life. Less temptations are there offered than in the crowded places of traffic, where society is more artificial, and there exists a greater disparity in the conditions of men; and in the varied aspects of Nature on the farm, in the ever unfolding wonders of the vegetable and animal kingdoms there are fresh and constant incitements to the practice of virtuous lives.

Our people need more of a well-regulated system in their business, but no stimulus to greater physical activity. Constant and agreeable employment, but not overwrought, will afford the happy condition where all the faculties may be most fully developed; a condition in which each individual may say—"I have enough for all my views and purposes: more wealth might be troublesome, and distract my attention from those pursuits in which I delight." Let it, then, be our mutual effort, in the coming year, that all enjoy this condition who desire and seek it.

Farm Accounts.—With the closing year, close all accounts; if they are allowed to pass over more than one year unsettled, the chance is that they will run many years, until confusion creeps in, and unkind thoughts, perhaps words, and alienation between neighbors, takes place. Most transactions may be remembered through *one* year, so that errors, or misunderstandings may easily be adjusted. If you value peace and pleasant associations with your neighbors, suffer no accounts to run longer than one year. But if there *are* difficulties, yield a little; let your charity place the most favorable construction upon every word uttered and act done, and if you cannot agree, refer the whole matter to disinterested friends, and not to the law.

Feeding Stock.—On this subject we have copied an article from the *Wool Grower*, to which we call particular attention. It includes the subject of *shelter*, as well as feeding. A plentiful amount of fodder may be very injudiciously expended; *regularity* in feeding is of great importance, for when the appetite is properly gratified, there should be periods of rest when no food is expected. If cattle are fed at any and all times, they will always be looking for food, and consequently uneasy, and this is not favorable to a thrifty condition.

Sympathy with Stock.—Do not believe that they are so dull as not to understand and appreciate your kind feelings. Last week a noble horse got loose upon the farm, and for an hour gave the astonished neighbors the most wonderful specimens of "ground and lofty tumbling," they had ever witnessed. Coming to spots in the garden where the loam was light and deep, he would plunge into it, roll, then rise, shake his sides, and with nostrils red and expanded, with mane, tail, and heels flying, showing his shoes nearly ten feet in the air, he bade defiance to his pursuers and their long poles! He gained the centre of the field, and then stood snuffing the gale from every point, the noblest animal of creation next to man. A boy approached him with outstretched arm and gentle words—"Poor fellow! Come here. I will not strike you." These were more potent than the poles had proved; the horse met him, rubbed his nose against the boy's jacket, and said as plainly as he could speak,—"I'll trust you; we are friends," and was led away to his stall. The animals of the farm soon become acquainted with the looks and manners of those about them, and will usually return such treatment as they receive.

Debt.—It is one thing to run into debt for a good farm implement that will enable you to save its value in a year, or a pair of oxen with which you may accomplish your spring work, then pasture and fatten, and make 10 per cent on them, and another to purchase furniture or fancy horses and carriages that you can very well do without; or "more land," which will embarrass your purse, and withdraw the attention and the manure from the acres now only half cultivated. Incur no debt unless from a necessity, if you wish to sleep soundly nights. Many things are to be done in this December, strictly appertaining to the farm, but that which we especially urge belongs to the mind. Store it well in these comparatively leisure hours with useful information; cherish the social affections, and make the world a cheerful one around you; and may we meet again beyond the boundary line of 1854, in the month of Happy Wishes, the first of a New Year.

THE MONTHLY FARMER.

This number closes the current year, and is accompanied by a full alphabetical index of the subjects treated in the volume, together with a list of the names or signatures of the correspondents. The volume contains articles upon nearly every subject which comes before the farmer in his vocation, most of them of a peculiarly practical character, and written with clearness and force. Their authors are persons engaged in the business of which they have written, and their opinions flow from their own operations and experiences. To the young farmer, or the inexperienced, who enters upon the management of a farm later in life, the *Monthly Farmer* will prove a treasury of knowledge enabling him to conduct its concerns with skill and consequently with profit. Valuable articles may be found on fencing, reclaiming, draining, plowing and planting, seeding, gardening, culture of orchards, rearing and management of horses, cattle, sheep, swine and poultry; on the division of farms, on the variety of soils and crops

best adapted to them; on the dairy; on the preparation and application of manures; on the implements and machinery of the farm, and, indeed, nearly everything that has a bearing upon either the internal or external interest of the homestead. These are interspersed with such articles as are supposed to interest female readers, and others that would prove useful to the mechanic and even the student.

There are also some fifty engravings of stock, implements, utensils and machinery, many of them engraved especially for this work, and embellishing and giving additional value to the whole.

NOTICE.

The undersigned would inform his friends and the public that he has disposed of his interest in the *New England Farmer* to his late partner, Mr Joel Nourse, who will adjust the affairs of the concern.

In retiring from the post which he has occupied for the past four years, he would express his thanks to his numerous friends and patrons, for their favors, and many kind words of encouragement, and would also say that he has lost none of his zeal in the cause of agriculture, and that it is not improbable that he may still continue to be engaged in disseminating useful information upon the art with which his tastes and interests are so intimately connected. JOHN RAYNOLDS.

Boston, Nov. 16th, 1854.

THE PUBLISHER TO HIS READERS.

The readers of this paper will learn, from a card in our advertising columns, that the firm of RAYNOLDS & NOURSE has been dissolved, by mutual consent, and that the undersigned has become the sole proprietor of the weekly and monthly *Farmer*. In announcing this change, the publisher will take occasion to say, that he assumes the whole burden of its management with the determination that the paper shall not only maintain the position it has already won, but that it shall attain to a still higher character and a more commanding influence among the agricultural periodicals of our country. The corps of office and associate editors who have conducted the paper for several years past, will continue their services, and will still receive the aid of the numerous correspondents whose pens have in times past imparted so much value and interest to our columns. If a strong force of able writers, a liberal outlay of capital, and efficient business management, can insure success in an enterprise of this kind, the undersigned thinks he can promise his readers that the *New England Farmer* shall continue to be known as an instructive, reliable and progressive Agricultural and Family Newspaper.

Boston, Nov. 16th. JOEL NOURSE.

NOTICE.

Important changes will be made in the Monthly *New England Farmer*, with the commencement of the new volume in January next. The size and number of the pages will not be altered. The work will be stitched and enclosed in a neat cover, and the advertisements will be printed on a separate sheet from the other portion of the work, so that they will not be included in binding the volume. The publisher has time only to announce these changes, but he intends to make the *New England Farmer* a first class magazine, and hopes to receive that support from the public which he will spare no effort to deserve.

EXTRACTS AND REPLIES.

FRIEND BROWN:—I herewith send a few apples of two varieties which grew in my garden. The sweet ones in particular, are considered very fine, and I think them well worthy of cultivation. I have two trees, one of which bore five bushels in 1852, and the other bore none. This year the latter bore well and the former had not *an apple on it*. The tree is a thrifty grower and an abundant bearer. The foliage is very thick and dark colored; the fruit comes into season here in 10th month, and it retained its flavor and kept well last year until the first of 2nd month. I never saw the apple in New England, though it may be found there. I should like to know the name.

The sour apples are now in their prime. The samples are part of the produce of a graft in one side of a tree. I had two bushels this year—not quite so many last year. I think I never saw a limb better loaded with fruit, nor one that presented a more beautiful appearance. Please give the name.

The samples are about an average for size and quality. Hoping they will arrive safe and in good condition, I remain thy friend,

LEVI VARNEY.

Bloomfield, C. W., 11th mo. 6, 1854.

REMARKS.—The sweet apple is very fine, both in appearance and flavor. It very nearly answers the description of the *Peach-Pond Sweet*, a Duchess County, N. Y., apple. It is a darker red than the Peach-Pond usually presents, but the specimens sent may be apples that were exposed to the full influences of the sun, which would give them a high color.

The sour apples are probably seedlings of the locality where they are found, and only of third-rate quality in flavor, but fine-looking.

GRAPES.—The use of grapes as an article of food, is much recommended in case of consumption. They contain a large quantity of grape sugar, the kind which most nearly resembles milk sugar in its character and composition, which is also useful for consumptives, it having a great attraction for oxygen, and readily affording materials for respir ation.

☞ The number of persons employed directly by the Boston newspapers is about 900.

For the New England Farmer.

MATURING PLANTS.

BY A. G. COMINGS.

Some months since, I furnished a short article for the *Farmer* on Maturing Plants. It was the leading object of my article to excite discussion upon various ideas which I asserted in what was then written. In the weekly *Farmer* of October 14, is a communication from Mr. RUFUS MCINTIRE, upon the "dogmas" of my communication before referred to. Having been from home, a month passed without my possessing any knowledge of Mr. McIntire's communication. Of course it could not receive an answer from me, unless I possessed an ability to judge a matter before hearing it. I believe fully in the right of every man to call every assertion of principle or fact in question, until he can gain satisfactory evidence of its truth. A man is not at liberty to *deny* any thing merely because it lacks proof. To deny, he must be armed and prepared to disprove what is asserted.

I do not understand Mr. McIntire to *deny* what I have asserted, positively; although some expressions may have such a look. He places himself in the attitude of investigation—he says, in substance, that, if these things are true, he is blindfolded—he wants "more light." This is all right. I hope farmers will pursue this course freely and constantly. I would, therefore, thank Mr. M. for his shot at the target which had been put up for him. I had, to my mind, full evidence of the correctness of the ideas advanced; but I did not imagine that the mass of those who ought to be interested in them, if true, would readily give credit to them.

There is in Mr. M.'s communication some sound of what Phrenologists call "*snap*." No objection to that—not the least. It is a poor gun that has no snap to it. It would not kill a lion nor a louse, a tiger nor a toad, if killing were ever so necessary.

To reply to him, we must hear him talk. Then a little talk may be made in answer.

1. Mr. M. says, "He remarks that a soil that contains no carbon in the form of vegetable matter or otherwise, cannot mature seed, though a stock may be produced, and instances the growth of wheat straw with worthless seed, and extends the same remarks to corn, rye and oats. Where can a soil be found, that any farmer would till, destitute of vegetable matter?"

Answer. Clay may be taken from any depth below where there is any vegetable matter, and clay-loam, also, and clover will grow in it readily, but at first in a dwarfish state. The fact rests upon positive proof. The clover contains carbon. Where does it come from? The small amount contained in the seed, under the influence of heat and moisture, begins the work of growth—then it appropriates its mineral elements from the soil—then opens its tiny leaves and feeds on carbon from the air, in the shape of gas.

The clover grows tap-rooted. The root itself contains more carbon than many seeds. The blade also contains much. The root is exceedingly insignificant in size, until the leaves are spread into the air. When the leaves are fully out, then the root immediately shows, by the rapidity of its growth, a new accumulation of power for progress.

If our world has been created, and the earth brought forth vegetation according to the Scripture accounts, all the carbon of the vegetable matter of the whole world has been derived from the air. From experiments which I have made, and circumstances of vegetable existence which I have known and examined, the conclusion is to me irresistible, that all the elements necessary to the growth, maturity and perfection of every kind of vegetable, is contained in the air, the rain, and the earthy matter of the soil. If so, the elements which lie dormant in the subsoil, with those contained in the rain and air, need only to become combined properly, and disengaged from impeding difficulties and affinities, to constitute a fit state of the soil for any service of vegetable life.

In 1853, I raised the finest, largest and best savoy cabbages that I ever saw, where the soil, to the depth of about a foot and a half, was made entirely from the subsoil taken from below the reach of roots of plants or trees, so that it contained no vegetable matter. To this no vegetable matter was applied in any form. Mineral manures only were applied.

In answer to Mr. M.'s first question, then, I will say, everywhere that a good subsoil can be found, if the vegetable matter is all gone, the intelligent farmer can cultivate with hope. He must not expect more than a dwarfish growth at first, of grain or grass; and that to fall below the production of seed, except in case of the top-rooted plants, which may produce a small quantity of seed, especially if biennial. But to expect the fibrous-rooted plants to grow and produce seed under such circumstances, such as wheat, rye, oats or corn, is out of the question.

2. Again, Mr. M. says, "Experience shows the uncertainty of a crop of wheat and the certainty of a crop of corn on the same soil. How will Mr. Comings account for this difference?"

Ans. There may be a variety of reasons for this. Indian corn may do well upon soil which contains so small a quantity of salt, or soda and chlorine, that wheat would not come to maturity. A few years ago I had some wheat precisely in this predicament. It began to lose color before the seed began to form, and gave clear evidence of failure. Upon a part of it I sowed fine salt, at the rate of a bushel and a half or more to the acre. The rest of it I left to its fate. Where the salt was applied, the wheat recovered and matured finely. The rest was dwarfed. In other cases, other causes would prevent the success of wheat, where corn would succeed.

Then again, corn will fail in some places where wheat does finely. There are many principles operating, any one of which may produce such results. The farmer who will understand the *why* of success or failure in all these things, will know that which he ought to know, to be a true farmer.

3. Again Mr. M. "He remarks that a good crop of turnips, or cabbage, can be produced with a small amount of vegetable matter in the soil, but that seeds of them cannot be raised on such soil. I would respectfully ask, what are his proofs of this position?"

Ans. Various and repeated experiments prove the growth of turnips and cabbages to require the earthy or mineral elements most at first; that they then draw largely from the atmosphere;

and that in the last work of the plant, the production of seed, it drives all its vital forces upward into the seed, which is always placed at the extremity of the plant. But more of this hereafter.

4. Again, Mr. M. says, "My own experience is, that cabbage and turnip seed can much more certainly be raised than good heads of cabbage or good turnips. Indeed, turnips will often refuse to increase into large good bulbs, and cabbages to head, but seed will be produced plentifully from these worthless turnips and cabbage stumps. Where does the carbon come from that produces these things?"

Ans. In all this, there is nothing very strange. Just such things have been seen everywhere, almost. This world has produced a great many cabbage-heads, and it is not strange that there should have been many small ones. It is one of the easiest things in the world to raise fine cabbages and fine turnips; but it all consists just exactly in this: *a man must manure his ground with good understanding*. That is just the best manure to buy. It never fails. Thousands of small cabbage-heads have been grown in soil where there was a superabundance of carbon; but there was a lack of the necessary mineral elements. In the same soil, seed could be grown in any quantity. This in no way conflicts with the ideas of my former communication.

Turnips, and cabbages also, throw certain mineral elements into the leaves, in large quantities. In the roots those elements are less required. The sprouting seed of the turnip uses its carbon in its first life. The radicle, or root which shows affinity with earthy matter, strikes into the soil. The plume is lifted up. The leaves increase. Small, fibrous roots branch out in every direction, in search of food. The leaves become much larger, while the root remains but a small taproot. (I speak of the common English turnip.) To it we again look, and we perceive the leaves to be of full growth. Now begins the formation of a bulb. As the bulb shows signs of maturity, the leaves turn yellow. They have performed their office.

I have a fact to refer to. I have observed that whenever the tops were cut off before the formation of the bulbs, no bulbs would be formed until a new set of leaves grew. If the leaves were kept down, no bulbs would form. Here is to me sufficient evidence that the carbon which helps to form the bulb is largely drawn from the atmosphere.

The further consideration of the subject must be deferred to another time, for another communication. A. G. Comings.

SPIRIT OF THE AGRICULTURAL PRESS.

Professor Nash, of Amherst, is the Editor of the *Connecticut Valley Farmer*. In the course of his agricultural visits last September, he called upon several farmers in Essex County, and among them, William F. Porter, Esq., of Bradford. He went over his farm, examined his stock, implements, &c., and listened to his statements with regard to loss and gain and adds—

"It will be recollected by some of our readers, that Mr. Porter drew the Essex Society's premium for the best managed farm, in 1851. His statement on that occasion was the best we have seen. It was full of valuable suggestions, which we doubt not have been ere this the cause of similar improvements on other farms to those which he describes in his own. In that statement Mr. Porter shows the year's expenses of his farm to have been $1,451,91, the receipts for the year to have been $3,369,76, and the nett profits $1,927,-85. He shows also that the farm, stock and tools stood him at $17,000, and that the year's profit amounted to about twelve per cent. on that investment. In that same statement, which we recollect to have read with intense interest, at the time, Mr. Porter states also his belief that he had that year greatly increased the productive capacity of his farm for years to come. Time has since verified the soundness of his opinion. The farm, now containing 200 acres, enables him to sell produce, for which his receipts are all of $4500 a year. He also declares himself fully confirmed in the opinion there expressed, that capital employed in farming may by energy and enterprise, be made to produce twelve per cent. profit."

We have known something of Mr. Porter's made of management, have been over his farm, and knew something of its capabilities for many years before he occupied it, and have no reason either to doubt his statements, or that the farm is an exceedingly valuable and productive one.

For the New England Farmer.

GRAFTING SUCKERS OF THE COMMON PLUM.

Mr. Editor:—What I am about to state may be nothing new; yet you may deem it worth repeating for the information of those who do not know, and for reminding those who have forgotten of an interesting fact in horticulture.

During the last spring, I grafted some suckers of common plums with scions of superior kinds. The suckers were not transplanted, but grafted where they grew, by the cleft-graft mode, low down near the ground. The grafts were tied with bass, and covered with grafting wax, and afterwards gravel was placed round them on the ground, so as to defend the wax from the action of the sun. The scions took successfully, some of them pushing very strong shoots. Having forgotten, until to-day, to examine the grafts and loosen the ties, I found on removing the gravel, that the bass ties were undecayed, and very much constricting the small stocks and the inserted part of the scions, which latter were greatly enlarged just above the ligatures; and from the callus or enlargement of the graft, as well as from the stock, above and below the tie, strong healthy roots were pushing out under the gravel, so that the scions apparently will become independent of the stocks, and established on their own roots; this is a favorable object, and may probably be attained in the case of other fruit trees as well as plums, by a similar treatment of the grafts.

It is my opinion, however, that the plum tree may be propagated by cuttings, without the assistance of grafting. I have observed, on turning up the ground where branches or prunings of

plum trees had been accidentally covered with earth that roots in great profusion had been produced from every part of the buried branch, as healthy and abundant as would have been put forth by willow cuttings, in a similar condition; being much occupied, I did not follow up the observation by making trial of plum cuttings. Those who have leisure and opportunity, will, I hope, do so.

I have in view another experiment, which I now announce in advance, trusting that I may be anticipated by persons who have more energy and perseverance than fall to my share. It is well known that the quince is a useful stock for the pear in situations where the soil is rich and moist, but that it fails in dry and gravelly soils. A stock that would dwarf the pear and induce fruitfulness, and also flourish in dry and poor ground, would be an acquisition of value. Such a stock may be found if I am not mistaken, in the small tree called in this locality, Indian Pear, but known in New England and other parts, by the name of Shad Bush or June Berry. The botanists' term for this tree is Mespilus Canadensis, or Amelanchier Botryapium. It flourishes in every soil; our gravelly hills and dry banks are covered with a spontaneous growth of it. Its development being less than that of the pear, the grafts should be placed low, so as to be readily covered with the ground, that the disproportion of stock and tree may not be seen. It attains to a size equal to the quince however. In my boyish days, I grafted these trees with pear scions which made considerable growth during the first season, but I lost sight of them, and know not whether they continued to prosper. As the trees were growing among other wild bushes, they were probably cut down; and the scions having been inserted in the branches had not much chance of becoming permanent; but I consider the stock to be a very promising stock for dwarfing the pear, and if life and health be granted, I may yet make the trial.

I remain, Mr. Editor, your old subscriber,

October, 25, 1854. Far East.

Remarks.—We do not know but the old adage, —"there is nothing new under the sun"—is true; but we do know that some most excellent things in agriculture, whether new or old, are not practiced. The above experiment is not only interesting, but encouraging, and will not fail to lead to valuable results. In confirmation of the fact stated by our correspondent, we will state an experiment of our own. About the last of March, in the spring of 1853, we cut healthy and vigorous suckers, as they are called, from an American Amber cherry tree, and immediately inserted them in the ground to the depth of six or eight inches, and directly under the tree from whence they were cut. The ground was shaded through the summer by the tree, and was occasionally watered with soap suds. The suckers then planted are now, some of them, four feet high and perfectly thrifty.

What need is there of grafting, if the cherry and plum can be obtained so easily by cuttings? Cuttings from many trees, would undoubtedly take root and grow well, if they were properly placed in the ground, and in proper situations. The direct rays of the sun must be nearly excluded from them, and the earth in which they stand be moist. We hope "Far East" will write us often.

GEMS.

GENTLE WORDS.

It is not much the world can give,
With all its subtle art;
And gold and gems are not the things
To satisfy the heart;
But O, if those who cluster round
The altar and the hearth,
Have gentle words and loving smiles,
How beautiful is earth!

A TINY POEM.

Little drops of water,
Little grains of sand,
Make the mighty ocean,
And the beauteous land.

And the little moments,
Humble though they be,
Make the mighty ages
Of eternity.

HEAVEN.

Heaven's gates are not so highly arched
As princes' palaces; they who enter there
Must go upon their knees!

IS FARMING RESPECTABLE?

Mr. Editor:—Some weeks since, I made a few remarks in answer to the question, "is farming profitable?" I propose to answer the query, "is it respectable?" It may be, after all, that people generally want money, for the purpose of making themselves respectable. What is respectability? Or in what does it consist? Now I am not in the habit of betting, but will venture to *affirm*, that not one in ten of your readers have any distinct idea of what respectability is; or what makes a man respectable. If wealth makes a man respectable, the old "Gripus," with his hoarded thousands, who walks the street with teeth shut as though he had the lock-jaw, and who clenches a fourpence, between his thumb and fore finger, so tight that you could not pull it away with a pair of pincers, is respectable. Yet, everybody hates him. Nobody will say that wealth alone, especially in this country, constitutes respectability. A "respectable man" is one whom the multitude delight to honor; who is regarded with attention; who is esteemed by the community generally as a trusty, a wise, or worthy man. Why, then, may not a farmer be as respectable as a lawyer, doctor or merchant? A man's reputation is, in some respect to be sure, controlled by the popular breeze; and a man may be despised to-day, for the very qualities that will make him popular to-morrow. In my estimation, a man with "a good name" is a respectable man; and therefore, as the wise man said, "a *good name* is rather to be chosen than great riches." No man should be despised merely because he pursues a useful and honorable business; and if farming is disreputable, it is because the farmer despises his own calling. The truth is, farmers in this country, and I suppose it is so everywhere, do not sufficiently respect

themselves. They look on professional men, and persons engaged in some other vocations, as a sort of superior people; and when demagogues condescend to flatter them, they feel "tucked up," as the saying is, just as children feel when receiving the approbation of their superiors. They feel a strong impression that farming has got a "bad name," and are tickled with the notice of persons whom they consider above them. But it will not always be so. There has been a good improvement in this respect during the last fifty years. Farmers are beginning to feel as "good as anybody." And why should they not? Is there anything degrading in cultivating the soil, the most important occupation on earth? The day-laborer on the farm cannot appear every day in his broadcloth and clean dickey, and he is prone to envy the man who can do so; and he looks on his soiled clothing and long frock as a badge of disgrace. Fie on you, man! It is said, the negro despises his own color; and if you are ashamed of yourself because you are a farmer, all I have to say is, you are just as wise as the negro.

We might go on and give a great many reasons why farming should be respectable; but it would be wasting ink to no purpose. Nobody will deny it. That it is not so respectable as some other calling, is also very apparent. Let a man appear in a promiscuous assembly, dressed in such a manner as to indicate that he is a farmer, and the "officers of the day" never see him; at church the sexton seats him in a distant pew, and he is made to feel in all his intercourse with the world, that he is nothing but a farmer.

Now respectability depends, as has already been intimated, on public opinion; and the farming portion of the community, being by far the most numerous, they are capable of controlling this opinion; consequently, all we have to do is, to respect ourselves, and if our business is not respectable, we may thank ourselves for it. There is no occupation in the world that gives the laborer more leisure time, than farming. This time may be spent in improving the mind; in the acquisition of ideas; consequently, the farmer need not be an ignorant man. Or these leisure hours may be devoted to writing for the agricultural, political, or religious press; and in this way he may have an influence abroad that no pulpit in the land can equal, for the press at the present day, is the great "lever that moves the world." Or if some of our farmers would spend their spare hours in practicing the art of declamation, I have no doubt that many of them would become respectable, and some of them superior public speakers. There may as well be learned farmers, as "learned blacksmiths." It is by no means necessary that a farmer should be an ignorant drudge, travelling an unvarying round, "like a horse in a bark mill," destitute of the amusements and elegancies of other professions. In fact, there is no other profession so full of real enjoyment as the farmer's. We have everything the heart can desire; or may have all. It lies in our own breasts and own wills to say whether our occupation shall be respectable. All that is wanting is a little more independence of character, so that we can stand up in the conscious dignity of manhood, and *boast* that we are farmers. Why, if all the farmers would do this, their numbers and influence would be such, that the "learned professions" would hide their heads and slink away abashed. Many of your readers have seen a pedler of soap, who made even his two-penny trade respectable by being proud of it himself. Of one thing we may be sure; nobody will have a better opinion of farming than the farmer has. Our occupation ought to be as good in New Hampshire as a title of nobility in Europe. There may be mean lords and mean farmers; but the fact that a man tills the soil for a living, ought to be considered presumptive evidence of his respectability. It is so in other professions, then why not in ours.—*Plowboy in Granite Farmer.*

THE SEASON.

From the first of June last, up to Tuesday, the 31st of October, rain did not fall in many parts of New England, in sufficient quantity to wet the ground as low as the roots of plants penetrate. Persons digging wells found scarcely any signs of moisture ten and twelve feet below the surface, and those heretofore affording an abundant supply of pure water had become dry, or the water was so impregnated with unpalatable salts as to become unfit for use. Such has been the case in many instances.

On the 31st of October, the heavens were opened; after many ineffectual attempts to weep upon the suffering soil, clouds came over this region and began gently to shed their rich treasures upon the crying and hungry earth. Fortunately, the rain fell at first in a thick, drizzling mist, until the surface was so much moistened as readily to imbibe the copious showers; it then came freely for several days, frequently accompanied by a strong south wind.

We noticed that immediately before the storm began, our interesting neighbors, the Muskrats, began to erect their winter habitations, and never did they rise with so much alacrity before; story after story went up, and what were yesterday but apparent heaps of fresh muck on the margin of the river, soon came to imposing edifices, with their subterranean and submerged channels, and convenient upper rooms. They are now beautiful pyramids, overlooking the river and adjacent meadows; we hope they will not become to the poor animals "dreadful posts of observation." How these curious animals knew the storm was approaching, that the river would suddenly rise and the low lands be overflowed, we have not learned. We did not see them looking at the weather-vane on a neighboring barn, or watching the state of the barometer, or hold up a wet paw to ascertain the direction of the wind, yet their instinct did not fail to prompt them to provide in good season for the coming waters. How beautiful and instructive to the observing mind are the works of the lower orders of animals. How obedient to the instincts implanted in them. How forcibly they recal expressive passages of the great Psalmist—

"O, Lord, how manifold are thy works! in wisdom hast thou made them all; the earth is full of thy riches.

* * * * * *

"These wait all upon Thee; that thou mayest give *them* their meat in due season.

"*That* Thou givest them they gather; Thou openest Thine hand, and they are filled with good."

Rarely have we received a better lesson than this of the Muskrats; to live truly to the attributes which God has implanted in our natures. We wish we could recite the lesson as well as we have learned it.

Now, at this writing, the clouds still portend *a little more rain*—the earth is saturated—the brooks skip with joy, and the springs so long silent, gush up with gladness. Hungry pike find a wider range on the flooded meadows, among the reeds and rank grass, and full mill-ponds drive merry wheels that had become dusty and dull for want of use.

Winter may now come as soon as it will. We shall have plenty of water for the cattle, and if Old Boreas favors us, plenty of ice for the Orientals and for skating upon by the boys. The full ponds and swamps and bubbling springs will send out their latent heat to soften the frosty winter air, and send back in curling vapors to the atmosphere a portion of the moisture they have so recently shed upon us.

CUTTINGS OF FRUIT TREES.

Cuttings should be made in autumn after growth has ceased, or early in winter—they may be preserved by fastening them in a box by slats running across, and then placing the open side of the box downwards with its contents in the bottom of a pit dug for the purpose, on a dry spot of ground, and burying the whole with earth. The slats keep the cuttings from coming in contact with the earth below, and they are preserved in a proper moist condition. Or, they may be packed in slightly damp moss, in a large box, placed in a cellar. Very early in spring they should be set out. Every cutting should be cut off just above a bud at the upper end, and just below one at the lower end. Taken off closely to the old wood, with a base attached, they are more sure of growth. They should be set out in a trench, in a rich mellow soil, which is to be packed or trodden closely about them as the trench is filled, and afterwards a mellow surface made by drawing on a little more earth. The length of the cutting should be eight inches to a foot, and two-thirds to nine-tenths buried. Shading the cuttings of any deciduous trees, (including all fruit trees) is of little or no advantage, but it is important to keep the ground uniformly moist; if this is done by watering, the surface should be preserved from crusting or cracking by mulch. This is the mode of raising quince trees, currants and gooseberry bushes, grapes, &c., but will not answer for the larger fruits generally, in the Northern States—it is cheaper to bud or graft, than to procure the few which may be obtained among many failures in this way.—*Albany Cultivator.*

For the New England Farmer.

GUANO.

As your correspondent gives the results of his trial of guano, I will give mine. I found an acre of land, lying unfenced, before the academy, serving as a pasture for all the stray cattle of the place. I put on a fence and planted it, with a view of grading when the ground was suitable. It is of the Connecticut Valley land, a light, worn soil. Having no manure, I bought 150 pounds of guano and applied on the hill, mixing it well with the soil. I planted three-fourths with corn, and the remainder with potatoes. It was hoed twice, and before the second time, had plaster and ashes. I left one row without guano. That came up looking as if it needed a *tonic.* I plastered half of it, which improved it. The worms ate it badly, and the drought affected it severely. I have just harvested fifty bushels of ears, the corn of which appears plump and sound. This is rather above the average in this region on similar land. The crop here is full one-half short from the drought, except on the low meadows, where it is fully up to the average. My potatoes are good, being remarkably large and sound. I think the average is about 18 hills to the bushel. As they are not all dug, I cannot give the amount.

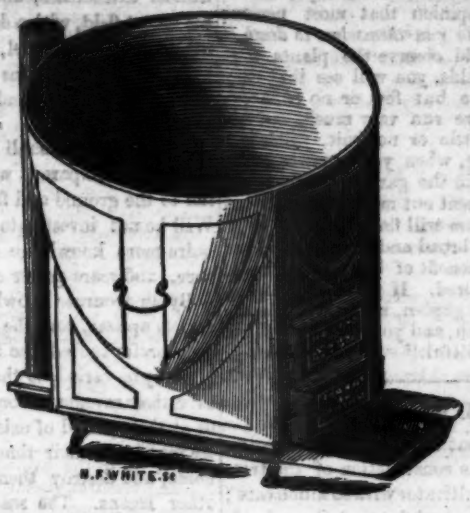
I bought and applied half a load of hog manure, at a cost of 75 cents, including hauling. The corn planted on this was better than that on guano, yielding about one-fourth more. The potatoes seemed to be no better than on the guano, being more in number, but smaller. This, I think, a common effect of that manure. I had, also, a bushel of beans. These grew well on the guano. Cost of guano and applying it, about $5,00—the guano costing $4,67. The plaster and ashes cost $2,25, and was applied to all the potatoes and corn except half a row. Manure, at $3 per cord, would have cost me about five times as much, applied at the rate I used the hog manure, which gives a volume in favor of the guano. My crops are as good as those of my neighbor adjoining, with thirty loads of stable-manure to the acre. If my ground is not in so good condition for the next year, I can afford to apply more guano, and not incur so much expense as he. I regard the trial as satisfactory.

Several of our men have tried it in various ways. Mr. D. P. Wheeler applied about 125 pounds to the acre of grass land, on the same soil and situation as mine. It was estimated to have doubled the grass. The grass was nearly a foot taller than where it was not applied, on the same ground. Its effects are plainly seen in the after-growth, at this time. He sowed his on about four inches of *sugar* snow, which melted the same day. Dr. Hosford and S. Willard, Esq., applied some to grass and to oats in May, with scarcely perceptible effects. It was applied in dry weather. Some others applied it in various ways, but with results not unlike the above. Those who covered it or applied it while wet, received benefit; those who used it dry, had little. The trial, on the whole, gave so favorable a result, that a second, on a larger scale, will be made the ensuing year.

A more particular statement of its effects in particular cases, together with some remarks on its application, may be made at another time.

I. H. Nutting, M. D.

Orford, N. H., Oct. 5th, 1854.



MacGREGOR'S PATENT PORTABLE CALDRON FURNACE,

OR, AGRICULTURAL BOILER.

The belief is prevalent now that it is a matter of economy to cook most of the food fed to swine, and under this belief many persons are devising methods of doing it in the cheapest and easiest way. We have before us a boiler somewhat different in its construction from any we have heretofore represented, and which is said by some who have used it to be superior to any other. We have not tried it. The description below is from Messrs. Ruggles, Nourse, Mason & Co.'s catalogue.

"These furnaces are made with and without covers, very substantial, and are more durable than any others in use; are arranged for wood, or fitted with grates and fire brick lining for coal. With the lining they are ever durable by replacing the bricks occasionally, at an expense of only $1,25, and can be used with wood with equal facility as if not lined.

They require less amount of fuel to accomplish the same amount of work than any other furnace or boiler, either set in iron or brick.

They heat equally as quick at the front as at the back part, the fire and draught being entirely under the control of the operator by simply moving one damper at the back part, consequently they are well adapted for all manufacturing and mechanical purposes, and for farmers' use, where an equal and governable heat is required. For the boiling of oil, the rendering of tallow, lard and such like articles, the boiling of food for stock, and the scalding of hogs, this article is unequalled by any furnace or boiler in the market. They have been fully tested eight years with much success. They are of different sizes, holding from ½ barrel to 4 barrels."

For the New England Farmer.

BURNT CLAY, MEANS GRASS, &c.

Burnt clay is now extensively used, in some sections of the country, as a manure for garden soil. It is generally prepared, I believe, by first accumulating a *quantum sufficit* of woody matter, and covering it with clay. The mass is then ignited, and burnt till the wood is reduced to coal and ashes, similar to the manner pursued in coal burning. The charcoal, ashes and clay thus furnished, constitutes an excellent dressing, and produces highly beneficial effects on both crop and soil.

MEANS GRASS—(*Sorghum Halapense.*)—This is a native of Syria, and belongs to the same genus as broom corn. It has recently been introduced to notice in this country by some experiments made in Massachusetts and New York, where its cultivation has been attended with considerable success. It can be cut several times in a season, and is consequently well adapted to soiling.

STRAWBERRY RUNNERS.—These should be contemplated in the light of weeds, and destroyed. They are no less detrimental to the plants than ordinary kinds of spurious vegetation, and produce effects equally as deleterious upon the crop. A writer in the *Gardener's Chronicle* remarks: "So convinced am I of the propriety of cultivating this fruit in separate and distinct plants, and of cutting off the runners, that I have this season taken out a plant between each of my plantations—thus making the distance between each plant *four feet by three.*" This is, perhaps, running somewhat too far into the opposite extreme; but there can be no question that an open arrangement is preferable to a close and crowded one.

A writer in one of the agricultural journals, in course of observations on Strawberry Culture, after asserting his opinion that most persons allow their vines "*to run themselves to death*," says:—"If you would observe the plants that bear the best in the fields, you will see that they are those which have but few or no runners; while those which have run very much, and become matted, bear little or no fruit. This is a lesson worth observing, when you come to cultivate the strawberry in the garden. Where the wild plant has not sent out much runner, from some cause or other, you will find the stock large and strong, the leaves broad and healthy, and the fruit, which has the benefit of both sun and air, is large and high flavored. If you have strawberry plants in your garden, keep the runners down to a foot in length, and you will make them healthier and more fruitful." GARDENER.

INQUIRY AND OBSERVATION.

It is not expected that the farmer shall have an *exact* knowledge of the construction of the trees and plants which he cultivates with so much care; or of the anatomy and physiology of the animals which he rears. He cannot learn the precise habits of the insects which destroy his crops, their periods of coming and retiring, or the office which it is designed they shall fill in the economy of nature. Yet a general knowledge of the laws which govern them, and a constant observation of their habits, will divest us of much of the repugnance felt towards them, and lead us to a profound contemplation of the wisdom and goodness of the Great Architect of all.

We plant the seed, and behold the germ springs to the light and air. What wonderful operations are still carried on! The tree assumes the most stately, as well as graceful forms—the buds, the leaves, blossoms, and fruit appear, surpassing in beauty all art of the most skilful hands. It furnishes fuel, shade, fragrance, sustenance, oftentimes protection against summer heats, or winter winds, and always beauty to the landscape.

But the farmer too often stands in the midst of his trees, his plants, and flowers, of his corn, and grass, and grain, which he has caused to grow, and looks upon them as the result of a mere mechanical operation. He overlooks that wonderful and mysterious agency which prepares the food, diversified as it is, and sends it to the farthest bud and leaf of a monarch of the forest, or the minutest tendril of the tiny vine. He plows, because it is easier to plant and hoe in a loose soil, fogetting that, in a fine tilth, there are millions more mouths to receive the food which the plant requires than in a compact soil; that these open mouths catch fertilizing substances from every passing breeze, and drink them in from the cooling dews and genial showers. He forgets that the sand which he applied to the clay land, has found potash in the soil, become soluble, been taken up by the roots of the plant, carried to its utmost extremities, and now covers the straw of his wheat-field, with a delicate and beautiful coating of sand, or enamel, which gives it strength to stand erect, and thus present its seeds to the influences of the sun and air, and bring them to perfection.

While he reaps, shall he not inquire how this came, and compare it with another field, which fell to the ground and failed to perfect its grain? Will he not investigate these causes and thus acquire more knowledge of the operations of nature, and more power over his crops?

By an accurate knowledge of the times when insects appear, and the kinds of plants on which they prefer to feed, the time of planting and sowing may be varied, so that it may be possible to escape their ravages in some degree in this manner; or as their period of existence is often very brief, we may learn their time of retiring to a winter home, and destroy them there by late plowing or other means. The season of their coming and retiring, the food they require, and the length of time they remain, being accurately understood, will, at least, give us a power over them we do not now possess. But this is not all we gain. This knowledge admits us to some of the secret and wonderful operations of irrational life, and thus leads us, by successive steps, "through nature up to nature's God."

The Rose Bug, for instance, has received its name from its annual appearance coinciding with the blossoming of that plant, and this fact may operate as a note of preparation against its ravages; and so it may aid us against the Caterpillar, Cankerworm, Curculio, and Beetles. The latter insect sometimes proves exceedingly destructive. The discovery was made by a gentleman, that they visited and defoliated his cherry trees in the night. When this habit was known, they were shaken down and destroyed in large numbers, and the trees afterwards saved. This fact was learned by reference to a work on insects, and will illustrate what it has become too fashionable to condemn as *Book-Farming*, as if facts recorded in a book or newspaper were not as valuable as though declared by the tongue. To be consistent, the scoffer at *Book-Farming* should reject many of the best practices of the farmer now, because Virgil wrote of them; or Cato, or Columella, or Jethro Tell, commended them.

The insect race has its part to fill in the great plan, and that part is undoubtedly an important one. We accuse them of encroachments when they select, as their favorite food, the plants we are cultivating for our own pleasure or profit. It may be, that in *their deliberations and conventions*, if they *hold any*, they look upon *us* as the aggressors. They feed on the common bounty as well as ourselves, enjoy their brief existence and die. Our

domestic animals do the same; but we make them subserve our purposes, and are content. We have not yoked the insect race to our implements for practical purposes; but having this decided advantage of them, the possession of reason, it is the part of wisdon to study their habits with patient care, until we become as well convinced of their usefulness, as we are of that of the Ox and Cow, and that an intelligent Being placed them here for our good.

Many of the Beetles live on plants not only of little use to man, but some of them poisonous, and in a state of decay often offensive; they are therefore to be reckoned among our friends. Some live on the juices of animals, and by this means destroy a great number of noxious insects. Others are of service in the arts, affording us the costly cochineal, scarlet grain, lac and manna. Dragon flies and some others subsist upon plant-lice, and thus become our active protectors.

For the New England Farmer.

BLACKBERRY---HEN MANURE---SALT FOR CATTLE.

The Blackberry.—This delicious fruit has rarely received the attention of the cultivator, though eminently deserving of all the care that can be bestowed upon it. A correspondent of the *Albany Cultivator*, over the signature of "S. H.," gives the experience of a friend of his, "who has a beautiful hedge, which produces a great abundance of excellent fruit." He says: "The plants are set out in rows four or five feet apart, and are kept free from weeds through the summer. In the fall, these spaces (between the rows) are filled with leaves from the forest. The next spring a quantity of ashes is strewn between the rows—these, with the leaves, are all the means used to secure a beautiful harvest every year."

Hen Manure.—Like guano, hen manure possesses many valuable properties, in a form most conveniently concentrated. In all cases, however, where it is applied *directly* as a stimulant to crops, it should be compounded with some less powerful material, as loam, muck, or garden soil. This is a necessary precaution, as the depositing of the seed on or beneath it, would inevitably prove fatal to its vitality. Mr. W. Bacon, an occasional correspondent in the *Farmer*, in the *American Agriculturist* says:

"I have lately been informed, by an intelligent and skilful cultivator, that the following preparation affords an ample and complete remedy. Take hen manure one part, reduce it as well as you can to powder; then with an equal part of plaster of Paris, incorporate well together, and sprinkle the mixture over the vines, or sow it over the drills of your turnips.

Hen manure is free from the seeds of foul weeds, and, in consequence of the great abundance of ammonia it contains, it possesses a great effect in pushing plants forward. Hence, for tomatoes, peppers and similar plants in our northern climate, it possesses high value. It is well worth being saved with care, by farmers and gardeners, for every purpose of cultivation. Care should be used, however, in its application, for if given in too large quantities, and placed in too close proximity to the roots of the plant, its effects are fatal. Its value for all purposes is greatly increased by being mixed with charcoal, or when this is not at hand, with plaster. Every man who keeps hens should have his hen-house so constructed as to save all the manure, and save it dry as may be, and he will find it no inconsiderable item in his matters of rural economy."

Salt for Cattle.—When cattle are allowed to partake freely of green and fermentable food, and especially on changing to it from dry aliment, they require a constant and liberal supply of salt. One quart of salt, and three of wood ashes, mixed, should be given to a full-grown animal monthly. Observer.

EVENING.

See! the shadows now are stealing
Slowly down the mountain's breast—
Hark! the turret bells are pealing
Cheerily the hour of rest.
Now the mellow daylight closes,
All the world from toil reposes;
Every breeze has sunk and died—
'Tis the peaceful eventide.

O'er the vale the mists are creeping;
Chaunting hive-ward wends the bee;
One by one the stars are peeping
Through the welkin tranquilly.
Murmuring, like a child dreaming,
Starlight on its ripples gleaming,
Through the mead the brook doth glide,
In the solemn eventide.

Oh! how sweet, at day's declining,
'Tis to rest from earth-born care;
Gazing on those far worlds shining,
Dreaming that our home is there.
Though the shadowy gates of even
Shut out earth, they open heaven,
Where the soul would fain abide
In the holy eventide.

Dublin Univ. Mag.

For the New England Farmer.

A GOOD PLOW.

Gentlemen:—Wishing that all those engaged in agricultural pursuits should have the best tools in use, I take the liberty to write you, although we are strangers, that in my opinion, among the most important tools is a good plow. I find that in 1849, Sept. 14th, I bought of you an Eagle Plow, No. 2, with Wheel Cutter, for which I paid you $11. With this plow I have done the most of my plowing from that time to the present; and you will find, by looking at the *Barnstable Patriot* of the 17th inst., I took the first premium for plowing at the Fair. The irons, by long use, are somewhat worn, but I think, by general observation, that the Eagle Plow, No. 2, for plowing all kinds of ground, has but few equals and no superiors. This plow runs deep, and you can always plow with a short chain, and guage the plow by the wheel. I plowed at the Fair 7 inches, the others less. At 7 inches, the plow runs easy and light for the oxen and those that manage the plow. I bought of you last May an Improved Cultivator, Rogers' steel teeth; this I think to be one of the best in use, and I would

advise all those who want the best implements, to use those named above.

Respectfully, E. T. Cobb.

Barnstable, Oct., 1854.

AGRICULTURAL AND COMMERCIAL VALUE OF RAILROADS.

The *Democracy*, a journal recently established at Buffalo by an association of gentlemen, and conducted with a good deal of ability, publishes the following table and remarks illustrating the value of railroads.—*Hunt's Magazine.*

Upon the ordinary highways, the economical limit to transportation is confined within a comparatively few miles, depending, of course, upon the kind of freight and the character of the roads. Upon the average of such ways, the cost of transportation is not far from fifty cents per ton per mile, which may be considered as a sufficiently correct estimate for the whole country. Estimating, at the same time, the value of wheat at $1.50 per bushel, and corn at seventy-five cents, and that thirty-three bushels of each are equal to a ton, the value of the former would be equal to its cost of transportation three hundred and thirty miles, and the latter one hundred and sixty-five miles. At these respective distances from market, neither of the above articles would have any commercial value, with only a common earth road as an avenue to market. But we find that we can move property upon railroads at the rate of fifteen cents per ton per mile, or for one-tenth the cost upon the ordinary road. These works, therefore, extend the economic limit of the cost of transportion of the above articles to 3,300 and 1,650 miles respectively.

Statement showing the value of a ton of wheat, and one of corn, at given points from market, as affected by cost of transportation by railroad and over the ordinary road.

	Transportation by railroad,		Transportation by highway.	
	Wheat.	Corn.	Wheat.	Corn.
Value at market	$49.50	$24.75	$49.50	$24.75
10 miles from market	49.35	24.60	48.00	23.25
20 do. do	49.20	24.40	46.50	21.75
30 do. do	49.25	24.30	45.00	20.25
40 do. do	48.90	24.14	43.50	18.74
50 do. do	48.75	24.00	42.00	17.25
60 do. do	48.60	23.85	40.50	15.75
70 do. do	48.45	23.70	39.00	14.25
80 do. do	48.40	23.55	37.50	12.75
90 do. do	48.14	23.40	36.00	11.25
100 do. do	48.00	23.25	34.50	9.75
110 do. do	47.85	23.10	33.00	8.25
120 do. do	47.70	22.95	31.50	6.75
130 do. do	47.55	22.80	30.00	5.25
140 do. do	47.40	22.65	28.50	3.75
150 do. do	47.25	22.50	27.00	2.25
160 do. do	47.10	22.35	25.50	.75
170 do. do	46.95	22.20	24.00	

How wonderfully does the railroad enhance the value of farming lands at a distance from market! American farms, generally speaking, are very far from market. Indeed, New York is the market for the bulk of the northern agricultural products. Most English farms have a market nearly in sight of them. But ours are for the most part so far away, that railroads of long lines and long connections instantly double, treble, quadruple, and quintuple the worth of grain lands near where they run. This has been the case in Ohio, Michigan, Indiana, Illinois, Wisconsin, and Canada. The President of the Nashville and Chattanoogo road has stated, that the increase in the value of a belt of land ten miles wide, lying upon each side of that line, was equal to $6,50 per acre, or $96,000 for every mile of road, which cost the company only $20,000 a mile. It has been calculated that the construction of the 2,000 miles of railroad in Ohio would add to the value of landed property in that State three hundred millions of dollars—that is, five times the cost of the roads, which was $60,000,000. The country can stand bankruptcies that come through railroad enterprises, if it can stand any. Of all forms, they are the least mischievous.

NEW SYSTEM OF PRESERVING MEAT.

If fresh meat could be had from distant countries, where it bears a very low price, the people of France would be able to purchase a much larger quantity of animal food; but this has been hitherto impossible, for the cost of transport and of fattening would be such as to make the meat dearer than that which is raised in France. Attempts have been made to preserve meats in the cheap countries, and export them to France, but they have all failed. There is now a project before the Emperor and the Minister of War for the drying of meat in South America, where it can be had at about one sou per pound, and importing it from thence for the use of the army and navy. We have seen some specimens of meat dried in Paris, and which at the expiration of five months were perfectly good. In South America a very large quantity of meat is dried in the sun, but the process carries away a very large portion of the nutritious properties, and it remains good only for a few weeks. The process on which the government has now to give a decision is simple and apparently efficacious. The water of the meat, which forms a very large portion of its bulk, is removed; and not by heated air, which has been frequently tried, and never with success, but by mechanical means; the meat is then plunged into a sort of varnish made from the gelatinous portions of the animal, and which not only forms a hard surface, but also enters into the pores of the meat and augments the nutrition, and then the meat is gradually dried. In about fifteen days it is fit for packing, and will, according to the assertion of the inventors, keep good for two or three years. When required for use, the meat is put for a few minutes into water, and it nearly resumes its original bulk, and is cooked in the usual way. If it be true that meat thus prepared will keep for two or three years, or even for one year, the adoption of the process will produce an enormous change in the economy of subsistence. In South America it can be prepared at about two sous per lb., including every cost. As it is reduced in bulk about one-half, the cost to transport would not exceed one sou, and it could be sold in France, with a profit of 25 per cent., at four sous per lb. South American meat is not, perhaps, equal in quantity to that raised in France, but even supposing it to be inferior to the extent of 20 per cent., the working-classes and the poor would have an abundant supply of animal food.—*Galignani.*

For the New England Farmer.

FARMER FOR OCTOBER.

Guano.—A report of some very careful experiments with Guano, by Mr. Putnam. My own onions, with tears in their eyes, unite with his in saying that guano does not agree with their stomachs, although some of the doctors said it must be just the thing for their constitutions. I planted a bed of top onions in drills over guano well mixed with hen manure and soil, and then, with the determination of having a premium bed, it was repeatedly watered with a weak dilution of guano. But I did not get the premium; for "all through the season they had a sickly look" and a feeble growth. I hope his seventy-five pounds upon his corn land will give a more favorable report. A few missing hills are all the effects I am able positively to report of part of a bag put in the hills, on a dry sandy soil.

Why is the farmer discontented?—"Because the occupation is not understood," is almost the last reason I should assign. Do not nine farmers out of ten know better than they do—are cramped and hindered by want of means and time rather than by want of knowledge? Tell the farmer who has no orchard, no currants, no flowers, no wood-pile, no pig-pen, no conveniences at all, that he don't know how to plant a tree or bush, that he don't understand chopping wood, that he has not ingenuity enough to fix up a fence or make a shelter for his pigs, and would he acknowledge *that* to be the reason of his discontent? Hard work and small pay at home, an easy life and large wages abroad, seem the alternatives that are constantly before the mind of young farmers, while many old ones believe that almost every body else live easier, more comfortable and genteel than themselves. So long as this is the case, so long will farmers remain discontented, and just so long they have a right to be discontented. Nor will education or science better the matter much. Does the young man and the young woman rush from the farm for the factory and shop to find food for the mind? Do the multitude go to California for the development of their intellectual faculties? So long as the conviction remains upon the minds of farmers that those who leave the business make out better than those do who remain in it, it is pretty much useless to preach them into contentment. These things will regulate themselves. When the trades and professions are filled up, or crowded down, to a level with agriculture—when people cannot do any better elsewhere, they will be content to till the soil. Many think that this will be the case soon; some believe, with your correspondent "A City Mechanic," and others, that it is so now. Every one *will* decide for himself.

Make your Girls Independent.—Machinery and other causes have of late made sad havoc of "woman's rights." Many of her occupations are gone entirely; and in looking about for substitutes, it is not strange that she should occasionally interfere with the prerogatives of the other sex, especially as tall men find it more profitable to make bonnets, to bake bread, to measure ribbons, pick up type, display calico, teach children, and be "kitchen corporals," than to plow the fields or rear herds. Mr. French's article will be much read. Suggestions from such a source on this important subject will be thankfully received; and the assurance of such men that "respectable employment" for females may be found in "dress making," in "manufacturing establishments," &c. will do good. In this neighborhood, nurses readily command from four to six dollars per week, and are often procured with difficulty at any price. Should not this be added to the list of employments for which females should be educated?

Fall and Spring Transplanting.—Whichever way the question of superiority may be finally decided, the fact that both seasons will answer, remains to encourage us to plant both spring and fall, until the question is settled.

Manuring Fruit Trees.—Why would not the common crowbar answer for making the holes for liquid manure, which are bored by the machine here described?

Honor to the Farmer's Wife.—If "not more than one out of two are capable of managing their part successfully," have not old bachelors about an even chance, notwithstanding the "impossible idea?"

About Apple Trees.—Directions for planting and managing. On most "old land" I should recommend, as essential, the use of some kind of compost in planting, to give the tree a start. Mud or muck, mixed with ashes, lime, salt, plaster, leaves, &c., or piled up alone to "slack," a few months before being used, will put the inches on the ends of the twigs and on the body of the tree, the first year. A great many apple trees have been "set" within a few years past; yet a person will see but few thrifty young orchards, in a trip of a hundred miles in any part of New England.

A Good Garden.—History of a merchant's garden. "Ten barrels of good apples for winter," beside lots in the fall; "all the pears we want;" "twenty kinds of roses and nearly one hundred sorts of flowers;" "plenty of the finest plums I ever saw;" "bushels of grapes;" "potatoes, beets, carrots, turnips, cabbages, onions, beans, peas, corn, cucumbers, melons, squashes, and pumpkins, as many as our folks want to use, all on less than one-half acre of land, without any help but my girls in the flower department." *Poor* old New England!

The Useful and the Beautiful.—In this article we are told that Downing and others made "a very vital mistake, not in the good or bad compiling of English authors, but in having had any thing to do with them at all. . . . It is not true that English works are adapted to American wants, but just the contrary." In the April number of the monthly *Farmer*, in a dissertation on "What a Garden should be," the same writer, after condemning the "straight lines and right angles" of time immemorial, says: "It was reserved for England to sublimate out of the whole mass of artificial gardening, a truer and more natural style." I am well aware that uneducated people, like myself, ought to distrust their own "taste" when it differs from that of the learned and cultivated. But I must confess to a "taste" for geometrical regularity and proportion, and cannot agree with Mr. Downing in commending the man who threw up potatoes to plant trees by, lest his workmen should fall into the vulgarism of geometrical figures; nor can I

see much beauty in the necessity which compels me to "box the compass" in following a winding path from the highway to my front door.

Another Specimen of Farming—and a very favorable one too. I understand the writer to say that although he is able to do only about 15 or 20 days work in the summer, he finds after paying "all expenses," a profit of $336 annually, over and above the support of his family. Do the clothing and groceries come out of this, or are they paid for out of the profits of some other profession, to which the time of "D. M." is mainly devoted?

State Almshouse at Tewksbury, Ms.—The account which is here given of the six hundred inmates of this institution, is a most sad one. That such an accumulation of ignorance, vice and misery should be possible in Massachusetts, in our day, is enough to make the blood run cold, and to prove that there *is* a difference between virtue and vice.

Cetonia Inda.—A description of an insect injurious to the peach.

"English Vegetables and Meats," "Application of Manures," "Tanning," "Cider Mills," and other machines, "Chapter on Husbandry," "Concord Grape," "City Mechanics and Country Farmers," "Marrow Squash," "Wages," and a great variety of other articles, must be passed over. I will here suggest to every reader of the *Farmer*, that the inquiries which are made of the Editor for information upon almost every branch of agriculture, and which are usually placed under the heading "Extracts and Replies," ought to be answered by all who think they can give any information, from their own practice or observation. This department of the paper might thus be greatly increased in value, for in many counsellors there is safety. Besides, these familiar questions and answers could hardly be classed as "book-farming," and might thus do more good than elaborate essays. The corn is now pretty much husked, and the long evenings may be well employed by those who seldom write, in answering the questions of the less experienced.

Winchester, Oct., 1854. A Reader.

For the New England Farmer.

SOAP, WHITE LEAD AND OIL.

Mr. Editor:—It is not so generally known as it should be, that a mixture of the above named ingredients makes an excellent coating for gates, fences and out-buildings. The addition of the soap (soft soap only is to be used) considerably diminishes the expense of the paint, without in any degree lessening its durability, or the facility of laying it on.

I have a house, the north-west side of which was painted with this mixture nineteen years ago, and the paint is now much more brilliant than that put upon the other sides at the same time, though the latter was of the best quality of white lead and oil, and four heavy coats applied, while of the soap paint I applied but *two*. Fences painted with this mixture, as well as the roofs of buildings, for which purpose any coloring matter, or pigment, may be substituted for the lead, endure much longer, it is ascertained, than those painted with pure oil paint. The alkalescent qualities of the compound tend to indurate the fibres of the wood, and render them impervious to those atmospheric influences which are the chief cause of decay and rot. The quantity of soap to be used can be best ascertained by experience; on this point no definite rules can be prescribed.

MILK.

The value of milk for dairy purposes, depends, to a considerable extent upon the animals kept. When analyzed, the fluid is found to consist of three distinct substances, viz:—cream, curd, and whey, into which it separates spontaneously in a state of repose. According to Berzelius, cream has a specific gravity of 1.0244, and consists in one hundred parts, of butter, 4.5, caseous matter, 3.5, and of whey, 92. On analysis, caseous matter yields carbon 59.78; hydrogen, 7.42; oxygen, 11.40: nitrogen, 21.38. When deprived of its cream, milk has a specific gravity of 1.03, and, in one thousand parts, yields of water, 928.75; caseous matter, 28; sugar of milk, 35; muriate and phosphate of potassa, 195. There are also noticeable traces of other substances.

Every farmer must have observed a striking difference in the quality of milk. While some animals produce a thin, bluish fluid, others yield a rich, yellow, or cream-colored milk, which is in every respect superior for any purpose. Feed, no doubt, as we have often taken occasion to observe, has a very decided influence in determining the quality of the milk of most animals; yet there are some cows which can never be made to produce a rich article, be they kept as they may. This fact—generally well understood it is presumed by the more experienced and practical part of the community—is of very great importance to the former, and should be scrupulously attended to in the selection of animals for dairy purposes. It costs, ordinarily speaking, as much to keep a poor animal, or one that yields a poor or indifferent quantity of milk, as it does to feed a superior milker. We are not sure but that in very many cases, it actually costs more to keep the poor animal.

There are generally indications of good milkers, which will be of great service, if they are studied so as to become familiar with them.

London Currants.—A writer in the *Horticulturist* speaks of the fine currants of the market gardens near London, which are grown in the following manner: They are planted in rows twenty or thirty feet apart, and three or four feet apart in the rows; the ground which is naturally good is highly manured, and cropped between with vegetables. When the plants commence bearing, they are pruned very hard; the greater part of the young wood is thinned out, and what is allowed to remain is shortened back to three or four inches. By this means the trees are always kept short, never attaining a greater hight than two or three feet. These strong

manured and well-pruned trees produce magnificent fruit, and in great abundance, well remunerating the market gardener for his trouble.

FEEDING OF ANIMALS.

RELATIVE PROPORTIONS OF FOOD FOR MAN YIELDED BY THE SAME HERBAGE IN THE FORMS OF BEEF AND MILK.

A curious economical question, in connection with the value of vegetable produce in feeding cattle, presents itself to us when we come to compare the proportions of human food which may be obtained from the same weight of herbage when cattle are fed with it for different immediate purposes.

A ton of hay may be given to a bullock to be converted into beef. Another ton of the same hay may be given to a cow to be converted into milk. Would the beef or the milk produced contain the larger supply of food for man? We have rather imperfect data to rely upon in answering this question, but they lead us to very interesting results.

1. According to Sir John Sinclair, the same herbage which will add 112 lb. to the weight of an ox, will enable a cow to yield 450 wine gallons, or 3600 lb. of milk. This milk will contain 160 lb. of dry curd, 160 lb. of butter, 180 lb. of sugar, and 18 lb. of saline matter, while the 112 lb. of beef will not contain more than 25 lb. or 30 lb. of dry muscle, fat, and saline matter together; that is to say, the same weight of herbage which will produce less than 30 lb. of dry human food in the form of beef, will yield 500 lb. in the form of milk.

2. But this statement of Sir John Sinclair's is, I fear, not to be relied upon. We have another, however, something different, from Riedesel, a Continental authority. He says that the same quantity of hay will produce either 100 lb. of beef, or 100 imperial gallons (1000 lb.) of milk. This quantity of milk contains only 150 lb. of dry food, but it is still five times as much as is contained in the beef.

This statement of Riedesel is also to be received with hesitation; but the subject is interesting and important, as well as curious, and is deserving of further investigation. Should the population of the country ever become so dense as to render a rigorous economy of food a national question, butcher-meat, if the above data deserve any reliance—will be banished from our tables, and a milk diet will be the daily sustenance of almost all classes of society.

INFLUENCE OF CIRCUMSTANCES IN MODIFYING THE PRACTICAL VALUES OF ANIMAL AND VEGETABLE FOOD.

The indications of theory, and the results of general practice, in regard to the nutritive power of different vegetable substances, are modified by many circumstances which ought to be borne in mind. Whether fed for work, or for the production of flesh or milk, the effect of the food given to animals will depend partly on the kind, breed, and constitution of the animal itself—on the general treatment to which it is subjected, and the place in which it is kept—on its size and state of health—and on the form in which the food itself is given.

1. *The breed or constitution*, every feeder knows, has a great influence on the apparent value of food. Some breeds, like the improved short-horn, have a natural tendency to fatten, which makes them increase in weight more rapidly than other breeds, when fed upon the same food. And even in the same breed, the rapidity with which one animal lays on flesh will sometimes make it two or three times more profitable to the farmer than others which are fed along with it.

2. *Warmth and shelter* cause the same amount of food to go farther, as do also gentle treatment and the absence of glaring light. Sheep have produced double the weight of mutton from the same weight of vegetable food, when fed under shelter, and kept undisturbed and in the dark. It is probably from this beneficial influence of warmth that, in the North American states, a difference of 25 per cent is observed in favor of the spring and summer over the winter feeding of the pigs upon similar food.

3. *The form in which the food is given* is of no less importance. Grass newly cut goes farther than after it is made into hay; and the opinion is now becoming very generally prevalent, that steamed, boiled, or otherwise prepared food, is more wholesome for cattle, and more economical to the feeder, than the same food given in a dry state.

In the case of horses, the difference between the practice of giving all the food dry and uncut, and that of giving all the hay cut with the oats and beans crushed, and an evening meal of steamed food, is such as to effect a saving of nearly one-third. Thus, the same wagon horses which consumed 3¼ bushels of oats per week, and 14 stones of hay, when given uncut, uncrushed, and uncooked, were kept in good condition by 2¼ bushels of oats, 8 stones of hay, and 7 lb. of linseed when the grain was crushed, the hay cut into half-inch chaff, and the linseed with a little bean-meal and cut hay made into a steamed meal-fed in the evening.*

The malting and sprouting of barley is by many practical men considered to increase its nutritive qualities. It is certain that, when mixed with boiled potatoes to the extent of three or four per cent., and kept warm for a few hours, bruised malt produces a prepared food which is much relished by milch cows, and is profitable to the dairy-man. There is reason to believe that similar mixtures with other kinds of food would produce similar beneficial effects.

Mr. Hudson, of Castle Acre, feeds his farm-horses on 12 lb. of *sprouted* barley a-day, besides their fodder; and this, on his light land, keeps them in good condition. It is prepared by steeping the barley for 24 hours, and then putting it into a heap and turning it over for five days.

5. *The souring of food* of all kinds has, by almost universal consent, been found to make it more profitable in the feeding and fattening of pigs. It makes them fatten faster, and gives a firmer and whiter flesh.

Many other circumstances also modify the real practical value of food, and cause it to produce results different from those indicated by its chemical composition.

* The dry feeding being—hay 12 lb., with oats and beans 14 lb.; the steamed feed—hay 3 lb., beans 3 lb., linseed 1 lb.—*Caird's English Agriculture*, p. 346.

Johnston's Ag. Chemistry and Geology.

For the New England Farmer.

CITY MECHANICS AND COUNTRY FARMERS—NO. 4.

WHY FARMING IS PROFITABLE.

Our last number, so far as it had reference to the subject under discussion, was a mere statement of the fact, that of my own family connections, those who remained farmers are better off for a living, than those of us are who learned trades.

The question, Why is it so? was kept in my mind while I was looking into their circumstances, their modes of life, their means of getting money, their ways of saving and of spending it, and I think I have discovered the important secret of their success, and of our failure.

Merely to say that farming is more *profitable*, in the usual sense of the word, does not satisfy me; for I do not believe it to be true. I fully believe that no class of people in the country work so many hours for a dollar as farmers—that into the pockets of no other class does money come as reluctantly and slowly as it does into the pockets of farmers. Nor can I allow that they are, naturally, more shrewd, saving, or thrifty than those of us who happened to learn trades. The secret of their superior success, therefore, is one worth knowing, and for the discovery of which, I must claim all the credit I am entitled to. But before divulging it, directly, as might be done in few words, we will take a peep at the farmer, and at the mechanic, as they return of a Saturday night to their respective homes.

The farmer seats himself by an open door, that his eye may glance over the fields. He has been haying for several weeks, and expects it will require one or two more to finish. The weather has been hot and rather "catching," and he has worked early and late to save his hay and dodge the showers. An old scythe and an old shirt have given out to-day. A new scythe must be had on Monday morning, any how, although he has not received the "first red cent" for his last month's hard labor. The old shirt may be patched, for his account at the store is running up strangely this year. Besides, his hay is rather light—the barn is hardly up to the beams, yet—and instead of having a single load to sell, he is afraid of being short of fodder before winter is out. How natural, how absolutely unavoidable is an economy that shall *tell*, in a family thus situated.

The mechanic comes home on Saturday night with the looked-for, calculated-upon, ten dollar bill (more or less, as the case may be,) in his pocket.

> "Now, wife and children, let's be gay;
> I've worked hard, and here's the pay."

The various plans which have been popping into the heads of the several members of his household, during the week, for the *economical* use of the expected money, are now discussed—food, clothing, fuel, rent, furniture, benevolence—not a single foolish project is suggested; yet the money is all provided for, and will be gone,—all gone,—by the time another week brings home another sum, to go in the same way. Thus almost unconsciously, a habit is formed of living up to the means; a habit that, after a little practice, becomes just as easy with three dollars a day, as with one dollar.

The avails of the labor of the farmer are beyond his immediate reach, and he can hardly spend them if he would; those of the mechanic are placed directly into his hands, in that most slippery of all property—ready money, which will almost vanish of itself. The farmer necessarily looks out for the future, "lays by in store," and takes into his calculations a year or series of years. This enlarges his powers of foresight, and in a great measure prepares him for misfortunes. The mechanic comes to limit his calculations and ambition to a week,—beyond which he neither looks nor cares to look; and thus reverses or sickness come upon him unawares, and unprovided for. Indeed, I often think that the practice of weekly payments, so stoutly contended for by mechanics, instead of proving to be a blessing, operates as a curse to them, by inducing this habit of living up to their means,—of spending all they earn as fast as it is earned. In making out the bills of journeymen, as I do for several weekly, I am sometimes amused, sometimes provoked, by their expedients to bring in every thing they have done, although the rule is to allow for such parts of the work only as are completed. By most, whatever is thus left to another week, is mourned over and scolded about as labor lost! To be assured that it will be good next week, affords about as much satisfaction as to promise them a corner lot in one of the cities in the moon. They take no thought for next week; may not live to see it; and if they should, next week must take care of itself.

Is my secret out? Farmers grow rich because they save; mechanics keep poor because they spend; and the habits of each are the result, mainly, of their respective circumstances.

A City Mechanic.

Boston, Nov., 1854.

MILCH COWS.

If you desire your cows to yield liberally to the pail, you must feed them with something better suited to the secretion of rich milk than *dry* provender. Chopped roots, or meal slops of some kind, should be given them twice a day, at least, say morning and evening. They should also be provided with littered beds, dry lodgings—moderately warm—be regularly watered thrice each day, just before being fed,—be curried or combed once a day, and salt, with occasionally a little ashes or fine bone dust mixed, two or three times a week. They also like a *variety* of food. Roots, cut or rasped, and mixed with cut hay or straw, then stirred and left for an hour or two, make a mess which they will eat very greedily. We think that hardly attention enough is given to the *bedding* of cows, as the more quiet and comfortable they are, the less food will be required to sustain the system, and may therefore go to produce flesh or milk. A gentleman who has constantly employed several pairs of working oxen for many years, states that oxen will travel fifteen miles a day, being well "littered down" at night, as easy as twelve miles, and lie upon the bare floor. If this state-

ment be correct—and it seems to us consistent—it is a pretty important matter that all our cattle are well provided for in this respect.

BOSTON IN 1774.

The following description of Boston, just before the breaking out of the American Revolution, is extracted from the sixth volume of Bancroft's History of the United States, just published. Mr. Bancroft remarks that the king had set him, self, and his ministry and parliament, and all Great Britain, to subdue to his will one stubborn little town on the sterile coast of Massachusetts, and proceeds as follows:—

"The old world had not its parallel. It counted about sixteen thousand inhabitants of European origin, all of whom had learned to read and write. Good public schools were the foundation of its political system; and Benjamin Franklin, one of their pupils, in his youth apprenticed to the art which makes knowledge the common property of mankind, had gone forth from them to stand before the nations as the representative of the modern plebeian class.

As its schools were for all its children, so the great body of its male inhabitants, of twenty-one years of age, when assembled in a hall which Faneuil, of Huguenot ancestry, had built for them, was the source of all municipal authority. In the meeting of the town its taxes were voted, its affairs discussed and settled, its agents and public servants annually elected by ballot, and abstract political principles freely debated. A small property qualification was attached to the right of suffrage, but did not exclude enough to change the character of the institution. There had never existed a considerable municipality approaching so nearly to a pure democracy; and, for so populous a place, it was undoubtedly the most orderly and best governed in the world.

Its ecclesiastical polity was in like manner republican. The great mass were Congregationalists; each church was an assembly formed by voluntary agreement—self-constituted, self-supported and independent. They were clear that no person or church had power over another church. There was not a Roman Catholic altar in the place; the usages of "papists" were looked upon as worn-out superstitions, fit only for the ignorant. But the people were not merely the fiercest enemies of "Popery and Slavery;" they were Protestants even against Protestantism; and, though the English Church was tolerated, Boston kept up its exasperation against prelacy. Its ministers were still its prophets and its guides; its pulpit, in which, now that Mayhew was no more, Cooper was admired above all others for eloquence and patriotism, by weekly appeals, inflamed alike by the fervor of piety and of liberty. In the *Boston Gazette* it enjoyed a free press, which gave currency to its conclusions on the natural right of man to self-government.

Its citizens were inquisitive, seeking to know the causes of things, and to search for the reason of existing institutions in the laws of nature. Yet they controlled their speculative turn by practical judgment, exhibiting the seeming contradiction of susceptibility to enthusiasm and calculating shrewdness. They were fond of gain, and adventurous, penetrating and keen in their pursuit of it; yet their avidity was tempered by a well-considered and continuing liberality. Nearly every man was struggling to make his own way in the world and his own fortune; and yet individually and as a body they were public spirited. In the seventeenth century the community had been distracted by those who were thought to pursue the great truth of justification by faith to Antinomian absurdities; the philosophy of the eighteenth century had not been without an influence on theological opinion; and though the larger number still acknowledged the fixedness of the divine decrees, and the resistless certainty from all eternity of election and of reprobation, there were not wanting, even among the clergy, some who had modified the sternness of the ancient doctrine by making the self-direction of the active powers of man, with freedom of inquiry and private judgment, the central idea of a protest against Calvinism. Still more were they boldly speculative on questions respecting their constitution. Every house was a school of politics; every man was a little statesman, discussed the affairs of the world, studied more or less the laws of his own land, and was sure of his ability to ascertain and to make good his rights. The ministers, whose prayers, being from no book, were colored with the hue of the times; the merchants, cramped in their enterprise by legal restrictions; the mechanics, who, by their skill in ship-building, bore away the palm from all other nations, and by their numbers were rulers of the town; all alike, clergy and laity, in the pulpit or closet, on the wharf or in the counting-room, at their ship-yards or in their social gatherings, reasoned upon government. They had not acquired estates by a feudal tenure, nor had lived under feudal institutions; and as the true descendants of the Puritans of England, they had not much more of superstitious veneration for monarchy than for priestcraft. Such was their power of analysis that they almost unconsciously developed the theory of an independent representative commonwealth; and such their instinctive capacity for organization, that they had actually seen a convention of the people of the province start into life at their bidding. While the earth was still wrapped in gloom, they welcomed the day-break of popular freedom, and, like the young eagle in his upward soarings, looked undazzled into the beams of the morning."

EFFECTS OF PROSPERITY. — How unavailing worldly prosperity is, since in the midst of it, a single disappointment is sufficient to embitter all its pleasures. We might at first imagine, that the natural effect of prosperity would be, to diffuse over the mind a prevailing satisfaction, which the lesser evils of life could not ruffle or disturb. We might expect that, as one in the full glow of health despises the inclemency of weather, so one in possession of all the advantages of high power and station, should disregard slight injuries; and, at perfect ease with himself, should view, in the most favorable light, the behavior of others around. Such effects would indeed follow, if worldly prosperity contained in itself the true principles of human felicity. But as it possesses them not, the very reverse of those consequences generally obtains. Prosperity debilitates, instead

of strengthening the mind. Its most common effect is, to create an extreme sensibility to the slightest wound. It foments impatient desires, and raises expectations which no success can satisfy. It fosters a false delicacy, which sickens in the midst of indulgence. By repeated gratification, it blunts the feelings of men to what is pleasing, and leaves them unhappily acute to whatever is uneasy. Hence, the gale which another would scarcely feel, is, to the prosperous, a rude tempest. Hence, the rose leaf doubled below them on the couch, as it is told of the effeminate Sybarate, breaks their rest. Hence, the disrepect shown by Mordecai, preyed with such violence on the heart of Haman. Upon no principle of reason can we assign a sufficient cause for all the distress which this incident occasioned him. The cause lay not in the external incident. It lay within himself; it arose from a mind distempered by prosperity.

EXTRACTS AND REPLIES.

TRANSPLANTING AND GRAFTING GRAPES.

Mr. Editor:—A few days since I found a small grape-vine which had a few very excellent grapes growing thereon; I want to take it up and set it near my house. Will you inform me of the best *time* to take it up and how to proceed; whether I shall cut any of the top off, or any of the roots? One of my neighbors has a large grape-vine growing close to his door; it fills the top of an arbor, which he has built some six or seven feet high, so thick that it makes a perfect shade beneath; but what is singular about it is this; it blossoms full every year, but never bears a grape. Now if you or your correspondents can inform me of any method that will cause this vine to bear fruit, I shall feel very thankful for the information.

When is the best time of year to graft a grape-vine? I grafted one last June, the 5th, and after starting and growing a week or two it died; whether it was the dry weather, or whether it was too early or too late in the season, I am unable to tell. I sawed the vine off below the surface of the ground and made two holes the size of the scions and put them in, and put grafting wax around the stock, and then covered the whole with dirt except the top bud of the scions.

Oct. 7. Ignoramus.

Remarks.—In transplanting grape-vines *save all the roots*, but shorten the top, prune to a single stem for some distance from the ground, and then bud as many branches as are necessary to fill the space desired; be careful not to have too much wood, and to cut away all weak shoots. If your ground is dry, transplant in autumn,—if it is wet, transplant in spring.

Your large vine is probably a barren or "male" vine. You can graft it by cutting it off below the surface of the ground, and inserting the scions in the mode usually practiced upon apple-trees, called cleft grafting; do not pare the scions too thin, cover with clay and earth up to the top eye of the scions.

The best time for grafting the grape is thought to be when the vine has just put out its leaves, and the first abundant flow of sap is over; the scions must be kept from starting into growth before they are put into the stock. We have tried grafting by boring holes in the stock, but without success.

WHAT ARE THE BEST GRAPES?

Mr. Editor:—I wish, sir, to make some inquiries of you in relation to grapes. Are the Concord, Diana, Charter Oak, Sage, and some other varieties of grape loudly puffed up in agricultural papers equal in value to the Isabella and Catawba grapes? In regard to the Concord, it is declared by some to be only 5th rate; as to the Diana, a dish of the same were exhibited at our County Agricultural Fair; the size of the berries and bunches were not more than one-third as large as Catawba grapes by their side, I purchased one bunch of them, which was divided among several good judges of grapes, and they were tried with the Catawba and declared to be inferior in size, and flavor, and evidently they were no riper. I would say also that Mr. W. S. King, of Boston, decided they were the true Diana.

The Charter Oak Grape is raised by a gentleman of my acquaintance, and is declared to be valuable only for preserving; the berries, however, are of enormous size. The Sage grapes I have tasted and although of large size, it has the sharp, foxy flavor of the wild native grapes.

Now, Sir, if I am incorrect or mistaken in any of these varieties, I hope to be corrected, and I desire your opinion, for I believe that farmers are the last class to be humbugged, and these grapes have obtained a high reputation by the description given in agricultural and horticultural journals. My opinion is that the Catawba Grape, for a hardy out-door grape (if well cared for) is decidedly the best grape. P. M. Augur.

Middlefield, Ct., 1854.

Remarks.—A comparison of grapes by a *sing le* trial of them side by side, could not give any one a fair idea of their permanent value. For instance, Catawbas and Isabellas have ripened well this year where they have scarcely been known to ripen before. Now to take them in their best condition, and that a condition only realized once perhaps in five or ten years, and pronounce them more valuable than some other grape which affords a crop of fair ripe fruit every year, would be a very unfair way of deciding on their respective value. The great merit of the Concord grape is that it ripens an abundant and rich crop *every year*, while it is at the same time a prolific bearer and an excellent fruit. Last year and the year before, we ate them and thought them superior to the Isabella; this year we have eaten them together and thought the latter grape fully equal to the Concord, if not a little better. But this year we have the Isabella in perfection,—the first time for several years. The Charter Oak we have never tasted. The Diana has also the merit of early ripening, and is a fine hardy grape. Both the grapes being in perfection, you prefer the Cataw-

ba, while we should certainly take the Isabella as being less acid. Our tastes do not agree; so that pronouncing one as decidedly better than any other would not amount to anything more than an announcement of our own peculiar tastes.

TANNER'S TRIMMINGS.

MR. EDITOR:—I wish to make a few inquiries in regard to fertilizers.

The tanning business is carried on two miles from where I live, where I can obtain 5 or 6 cords of trimmings from the hides after being tanned, by hauling it away. The heap has been collecting six or eight years, and I should presume was partially decomposed at the bottom. Would it be profitable to haul it that distance as a fertilizer? (*a.*)

If so, what would be the best method of using it? My land is a very light loam, but not sandy. I have, however, two acres of clayey loam where I intend to sow spring wheat. I have bought some Mexican guano, and dry ground bone, with which I intend to manure my clayey land. When should it be applied, in the spring or fall? (*b.*)

Searsmont, Me., Oct., 1854. J. M.

REMARKS.—(*a.*) You may use the trimmings you speak of with great advantage by plowing them in sufficiently deep to prevent the escape of volatile matter, or by composting with moist meadow muck or loam. They would be a cheap manure hauled six miles.

(*b.*) Apply the guano and bone in the spring, on the furrows, and work it under with the cultitor or harrow.

ASHES.

FRIEND BROWN:—I wish to inquire through the *Farmer* respecting ashes that has been in the ground for fifty years, whether there is any value to them or not as a manure? I have a large quantity which I wish to use, if of any value. S. S.

REMARKS.—The ashes you speak of will undoubtedly be worth collecting and using. If they have not been freely leached they are still quite valuable.

THE SHOE SHOP AND THE FARM.

MR. EDITOR:—Last spring I left the shoe shop for a farm, which I hired, and went into debt for tools, seed, &c., and notwithstanding the severe drought, I find I shall be able to make a good living. I have resolved to stick to the farm as long as I have been engaged in shoe-making, ten years, and read the *New England Farmer* every week, and if I make no more progress in farming than I have done this year, I shall have a comfortable home and living, and a far pleasanter occupation. Potatoes in this section are but little more than one-fourth the usual crop, although there is no appearance of disease. J. H. R.

Middleton, Vt., 1854.

WHEAT.—It is estimated that the Canadas will raise the present season a surplus of 12,000,000 bushels of wheat, which, of course, will look abroad for a market. By the new reciprocity treaty, provincial grain and flour come into our market free of duty.—*Buffalo Courier.*

DOCKING HORSES USELESS AND BARBAROUS.

We are glad to see that the abominable practice of docking and nicking horses is getting out of fashion. It prevails in no country in the world but England and the United States: we got it from the mother country, and the sooner we leave it off, the better. It is wonderful how anybody but an ignorant, narrow-minded block-head of a jockey, should ever have thought of it, being as offensive to good taste as a violation to every humane feeling. Has nature done her work in such a bungling manner, in forming that paragon of animals, the horse, that he requires to have a large piece of bone chopped off with an axe, to reduce him to symmetry—or that beauty and grace can be obtained only by cutting a pair of its large muscles?

"The docking and nicking of horses," says an intelligent writer on Farriery, "is a cruel practice, and ought to be abandoned by the whole race of mankind. Every human being, possessed of a human heart and magnanimous mind, must confess that both the docking and nicking of horses is cruel; but that creature called man attempts thus to mend the works of his Almighty, wise creator—in doing which he often spoils and disfigures them. What is more beautiful than a fine horse, with an elegant long tail and flowing mane, waving in the sports of the wind, and exhibiting itself in a perfect state of nature? Besides, our Creator has given them to the horse for defence as well as beauty."

The same author relates an instance of a fine hunting horse owned by an Englishman, which could carry his rider over a five-barred gate with ease; but he thought the horse *did not carry as good a tail* as he wished,—he therefore had him nicked, and when the horse got well, he could scarcely carry him over *two* bars. "Thus," said he, "I have spoiled a fine horse; and no wonder, for it weakened him in his loins." Any man of common sense would give ten per cent. more for a fine horse whose tail had never been mutilated, than for one which had been under the hand of a jockey.

SOLIDIFIED MILK.

The last number of the *American Medical Monthly* contains an account of a visit made by a committee of medical gentlemen, appointed by the New York Academy of Medicine, to the establishment of Mr. Blatchford at Armenia, N. Y., (some 30 miles east of Poughkeepsie) where "solified milk" is prepared. If the opinions expressed in the article referred to, respecting the value of this new description of food, are well founded, the juvenile population, at least of New York, may indulge in hearty self-congratulations; for "swill milk" has already committed appalling ravages in their ranks. The editor describes the process of solidification as follows:

To 122 lbs. of milk, 28 lbs. of Stuart's white sugar, were added, and a trivial proportion of bicarbonate of soda, a teaspoonful, merely enough to insure the neutralizing of any acidity, which in the summer season is exhibited even a few minutes after milking, although inappreciable to the organs of taste. The sweet milk was poured into evaporating pans of enamelled iron, embedded in

warm water heated by steam. A thermometer was immersed in each of these water baths, that, by frequent inspection, the temperature might not rise above the point which years of experience have shown advisable.

To facilitate the evaporation, by means of blowers and other ingenious apparatus, a current of air is established between the covers of the pans, and the solidifying milk. Connected with the steam engine is an arrangement for stirrers, for agitating the milk slightly while evaporating, and so gently as not to *churn* it. In about three hours the milk and sugar assumed a pasty consistency, and delighted the palates of all present. By constant manipulating and warming, it was reduced to a rich, creamy-looking powder; then exposed to the air to cool, weighed into parcels of a pound each, and by a press, with the force of a ton or two, made to assume the compact form of a tablet, (the size of a small brick) in which shape, covered with tin foil, it is presented to the public.

Some of the solidified milk, which had been grated and dissolved in water the evening previous, was found covered with a rich cream. This, skimmed off, was soon converted into excellent butter. Another solution was speedily converted into wine whey, by a treatment precisely similar to that employed in using ordinary milk. It fully equalled the expectation of all; so that solified milk will hereafter rank among the necessary appendages of the sick room. In fine, this article makes paps, custards, puddings and cakes, equal to the best milk; and one may be sure it is an unadulterated article, obtained from well-pastured cattle, and not the produce of distillery slops; neither can it be watered.

For our steamships, our packets, for those travelling by land or by sea, for hotel purposes, or use in private families, for young or old, we recommend it cordially, as a substitute for fresh milk.

We look with interest for the scientific report of the Committee of the Academy of Medicine, in which we hope for an exposition of the domestic, culinary and hygenic properties of solidified milk.

Hog's Lard—It is stated that one establishment in Cincinnati last year tried out thirty thousand hogs. To carry on this immense business, they have seven large circular tanks, of sufficient capacity to hold fifteen thousand gallons each. They receive the entire carcass, with the exception of the hams, and the whole is subjected to steam process, under a pressure of seventy pounds to the square inch, the effect of which operation is to reduce the whole to one consistence, and every bone to powder. The effect is drawn off by cocks, and the residuum, a mass of earthy substance, as far as made use of, is taken away for manure. Besides the hogs which reach the factory in entire carcasses, the great mass of heads, ribs, backbones, trail pieces, feet, and other trimmings of the hogs cut up at different pork houses, are subjected to the same process, in order to extract every particle of grease. This concern will turn out this season three million six thousand pounds of lard, five-sixths of which is No 1. Nothing can surpass the purity and beauty of this lard, which is refined as well as made under steam processes. Six hundred hogs per day pass through these tanks one with another.

WHEAT TRADE.

The estimated extra breadth sown in the United Kingdom last season is *one-tenth above the average*, equal to 1,600,000 quarters. On the other hand, there is an excess of produce above the average, of from one-sixth to one-eighth. Taking the mean of one-seventh, our account of the present crop and stock stands as follows:—

	Quarters.
Average produce	16,000,000
Excess in breadth one-tenth	1,600,000
	17,600,000
Excess of produce one-seventh	2,514,285
Quarters	20,114,285

If to this we add one million and a half of foreign grain, we have an aggregate of 21,614,285 quarters to meet the consumption of the year, which is estimated at 21,000,000. There will still, however, be the usual stock of the country—now minus 5,000,000 quarters—to be made up. For it would be monstrous to suppose that in a country like this, there should be no stock on hand to fall back upon in an emergency. We shall, therefore, require an importation this year of from four to five million quarters, to place us in the average condition we have hitherto found ourselves in, in regard to the stock of wheat.

We shall next take a look round, and see how this supply is to be obtained. As we have just stated, any calculations for the future, founded upon the experience of the past, are not to be depended on. With present appearances, it is not at all likely that we shall obtain the usual supply from the Black Sea ports, even if the Danube is free to navigation, and the Crimea and Odessa were in the possession of the allies—as I hope will soon be the case. The consumption and waste of such large armaments, and the disarrangement of commerce and agriculture under the iron rule of war, to say nothing of the probable prohibition of the Czar to his subjects from supplying the allies, or conducting commerce with them from the interier—all these circumstances lead me to think that the quantity of wheat we shall obtain from Southern Russia this season, will be very small. And with respect to the Danubian Principalities, they have been for twelve months the seat of war, and are still occupied with vast armaments. Under the Russian coercive domination, neither agriculture nor commerce could be conducted with any regularity; and it is probable that not only was a large portion of the land left unsown last autumn, but that much of the growing crop has been destroyed by the military operations, and in furnishing the Russian cavalry with green food; for no economic considerations would, by any possibility, enter the mind of a Russian officer. We shall, therefore, have much less grain than usual from the Danubian and other Turkish Black Sea ports, *if we get any at all*, which is very doubtful.

From the Mediterranean ports, with the exception of Egypt and Syria, we shall obtain but little wheat. France and Italy are, for the present, closed against exportation by prohibitory laws. The former country, and the United Kingdom, has exhausted her stocks of old native wheat, and is compelled to fall at once upon the new crop, which, however good, will not be enough to meet the consumption, and provide the

usual reserve stock. It is probable that France and England will continue, as last year, to trade mutually with each other in wheat, according as the market fluctuates. If the price falls here below that in France, the latter will be buyers in our market, and *vice versa*.

With regard to the Baltic and Northern countries, with the exception of Russia, the stocks of old wheat are exhausted. Not only had the merchants the stimulus of high prices to induce them to ship to the utmost, but the insecurity, and the uncertainty as to what course the war would take, induced them to export to the last quarter to England and France, as the only countries where it would both be safe, and obtain remunerating prices. The crops in those countries are good, and we shall probably get an average quantity from thence, if no untoward events cause a blockade of the Baltic ports.

We now come to the United States of America; and if the accounts of the maize crop—and wheat also, in some parts of the Union—be correct, their prices will probably be too high this season to allow of their shipping more at any rate than the usual quantity this season. It is stated in the American papers, that the corn crop (maize) is at least one-fourth deficient, which amounts to 125,000,000 bushels, or 15,625,000 quarters.* And, with regard to wheat, in some of the Western States, where the largest quanity is raised, the crop is very deficient—in many cases amounting to a total failure. To what extent this may be the case, it is impossible to say; but, taking the deficiency in both crops into account, it must necessarily have its effect upon the price; and, unless our prices are higher than theirs, it will materially affect the export of wheat from the States, and also, probably, draw off a considerable portion of the supplies from Canada, where the crop is represented to be excellent.

Under these circumstances, I estima tte supplies for the next year as follows:—

	Quarters.
The Northern ports	1,750,000
Mediterranean	500,000
Black Sea do.	300,000
United States	800,000
Canada	400,000
	3,750,000

This may probably be made up to four millions, from the quarters that do not come under the sections above given; but I cannot, by any possibility, see where we can increase that quantity, unless "a sudden transition from war to peace" should restore our Northern trade to its accustomed channels. However, with this quantity added to the abundant crop, we shall be able to reinstate the country in nearly the same condition as to stock, that it has usually held; and we need not fear that prices will materially fluctuate throughout the season.—*Mark Lane Express.*

* The corn (or maize) crop of last year was 500,000,000 bushels.

HAPPY TO HEAR IT.—MRS. FRANCES D. GAGE, of St. Louis, delivered the Address before the Washington County Agricultural Society, at its late annual show. This is said to be the first instance of the kind on record. Wish we had been there to listen to her.

LADY JANE.

The following beautiful verses, on a favorite Horse, were written by the late Mrs. Frances S. Osgood:

O, saw ye e'er creature so queenly, so fine,
As this dainty, aerial darling of mine?
With a toss of her mane, that is glossy as jet,
With a dance and a prance, and a frolic curvet,
She is off! She is stepping superbly away!
Her dark, speaking eye full of pride and of play.
O, she spurns the dull earth with a graceful disdain,
My fearless, my peerless, my loved Lady Jane!

Her silken ears lifted when danger is nigh,
How kindles the light in her resolute eye!
How stately she paces, as if to the sound
Of a proud, martial melody playing around,
Now pauses at once, 'mid a light caracole,
To turn her mild glance on me beaming with soul;
Now fleet as a fairy, she speeds o'er the plain,
My darling, my treasure, my own Lady Jane!

Give her rein! let her go! Like a shaft from the bow,
Like a bird on the wing, she is speeding, I trow—
Light of heart, lithe of limb, with a spirit all fire,
Yet swayed and subdued by my idlest desire—
Though daring, yet docile, and sportive but true,
Her nature's the noblest that ever I knew.
How she flings back her head, in her dainty disdain!
My beauty! my graceful, my gay Lady Jane!

For the New England Farmer.

FAIR PREMIUMS.

MR. EDITOR:—During the course of twelve or fifteen years of experience and personal observation in regard to the distribution of "premiums" at our annual "Fairs," something has, in regard to merits and demerits, been learned. In going over a board of judges on premiums, of course we must expect that there will be about as many different ideas in regard to the articles to be judged as there are men to judge. Of course it will be understood that men acting as committees on premiums, will exercise their judgment in the most judicious manner possible. And yet each one will have his own peculiar way of thinking in the matter to be judged, and will do so in most cases conscientiously. There may be cases in point where men have showed a disposition to vary from this rule, but as a general thing I believe that an honest judgment is given, though it may err many times from a want of information on the subject in point. Many times "committees" occupy wrong positions—that is to say, they are placed where they should not be. This is not done by any influence of their own in getting the position as committee men, but more through the ignorance of others in placing them in that position—a position which, many times, they would be glad to be out of.

Taking all things into consideration, I believe that the great mass of men at our "Fairs" have justice done them, although I make exceptions to the rule. In looking over the list of premiums awarded at our late "State Fair at New Haven," my attention was called to some points which I have thought worthy of note. The awarding committee on agricultural implements and machines, seem to have lost sight of one important point; that is, the award of premiums appeared, in most cases, to have been given to exhibitors and dealers in farm implements and machines. Now every man must see at once that the premiums properly belong to the inventors, im-

provers, and manufactures of these implements, and not to the mere dealers. A simple "dealer" in farm implements and machines, buys and sell these articles to farmers at a "profit," and lives by it; of course this does not entitle him to the premiums that may be given on these implements and machines, as they belong to the inventor and manufacturer. If a dealer is an inventor and maker of these implements as well as seller, then, of course, he is entitled to the "merit" of his own productions. But this is not all. A dealer or operator in agricultural machines, if he get up a good exhibition of farm implements at a "Fair," should be rewarded by a special or discretionary premium by the committee. But the premiums properly belong to the inventors and manufacturers of such tools and machines.

If this principle be carried out of giving premiums to dealers and buyers instead of inventors, how long will it be before inventors and improvers will say, it is very little use for us to invent and bring out new tools, because "buyers and forestallers" get all the profits and glory? I have found that inventors and manufacturers of implements often think more of a premium or diploma awarded to them, than three times the price of the tools. This is all very natural, because it shows that their skill and inventive genius has been appreciated by the public at large. This principle is of more consequence, taking it in this connection, than many of us are willing to believe. There might have been awards made in other departments at our "Fair" quite as indirectly or injudiciously as in this case, but in all cases they were made in honor without doubt. Yours truly, L. Durand.

Derby, Ct., Oct., 1854.

THE HORSE KNOWN BY HIS EARS.

The size, position, and motion of the ears of a horse are important points. Those rather small than large, placed not too far apart, erect and quick in motion, indicate both breeding and spirit; and if a horse is in the frequent habit of carrying one ear forward and the other backward, and especially if he does so on a journey, he will generally possess both spirit and continuance.—The stretching of the ears in contrary directions shows that he is attentive to everything that is passing around him, and while he is doing this he cannot be much fatigued, nor likely soon to become so.

It has been remarked that few horses sleep without pointing one ear forward and the other backward, in order that they may receive notice of the approach of objects in any direction.—When horses or mules march in company at night, those in front direct their ears forward; and those in the middle of the train turn them laterally, thus to be actuated by one feeling which watches their general safety.

The ear of the horse is one of the most beautiful parts about him, and by this is the temper more surely indicated than by its motion. The ear is more intelligible even than the eye; and a person accustomed to the horse, can tell, by the expressive motion of that organ, almost all that he thinks or means. When a horse lays his ears flat back on his neck, he most assuredly is meditating mischief, and the bystander should beware of his heels or his teeth. In play the ears will be laid back, but not so decidedly nor so long. A quick change in their position, and more particularly the expression of the eye at the time, will distinguish between playfulness and vice.

The hearing of the horse is remarkably acute. A thousand vibrations of the air, too slight to make any impression on the human ear, are readily perceived by him. It is well known to every hunting man, that the cry of hounds will be recognized by the horse, and his ears will be erect, and he will be all spirit and impatience, a considerable time before the rider is conscious of the least sound.—*The Horse and his Rider.*

CORRECTIVES OF SOILS.

It is not unfrequently the case that soils, which to a merely superficial examination appear to possess all the qualifications requisite to ensure a state of high and sustained fertility, are yet almost entirely sterile and unproductive, even under the best management that can be adopted. Such lands, however, are by no means valueless. Their sterility is the result either of some bad ingredient, or the excess of some valuable constituent, the presence of which has not been ascertained by the cultivator, and which disappoints his expectations and efforts alike, whether the radical cause be a mystery, or the proper remedy unknown. Among the many causes operating to produce an unkindly constitution, we may in the first place, mention the presence of iron in its acid combinations. In this case, we generally detect by the aid of chemistry, the presence of copperas—sulphate of iron. And when, upon examining specimens of a sterile soil by washing, we detect the salts of iron, or any acid matter, we may be assured that the proper, and indeed, the only efficient corrective to be applied is *lime*. This mineral will convert the sulphate of iron into manure, and so far neutralizes the acid as to render it harmless to the crop.

In some soils we detect an excess of calcareous matter—generally in the form of lime or chalk. In this case recourse must be had to some putrescent and easily decomposable *acid;* clay or sand in which there exists a considerable quantity of oxide of iron. Blacksmith's sweepings constitute also a valuable ameliorant; but on applying it to the soil, it should never contain more than one-twentieth part of oxide of iron, as too large a per centage would be disastrous rather than genial in its results. There are other correctives which may be advantageously used in such cases; as for instance, chalybeate water, (water impregnated with iron) and peat containing vitriolic, (i. e. sulphuric) salts. The effect of these is to change the lime or chalk contained in the soil, into that well-known and salutary substance called gypsum, or plaster of paris, the beneficial effects of which on the vegetable system are appreciated by all.

Carbonate of lime—lime and charcoal united—is sometimes found in soils in large quantities, and when such is the fact, gypsum applied as a manure and oxide of iron, as a *corrective*, produce the best effects. "Carbonate of lime is mild lime, in combination with charcoal, absorbed from decayed vegetable or animal matter." Where there is an excess of humus—soluble or insoluble—an effectual remedy is found in paring and burning. The practice is common with us of piling and burning the turfs, roots, &c.; but we carry the process further, and more effectually, by bogging or plowing, and adding sand or gravel, which wonderfully facilitates the power of the soil to yield a crop. The humus, or peat mud, has an abundance of potash, which, coming in contact with the sand applied, renders it soluble, and this furnishes another important element, silicon, which the plant must have before it can be perfected. We seem to have advanced beyond the English practice, in the reclamation of bog meadows.

In the improvement of low, peaty or marshy lands, which produce aquatic plants, the initial step in improvement is draining. After this, if the soil be *foul*, or to any extent infested with rushes, flags, or other similar productions, it will perhaps, be judicious to pare off a thick turf and burn it. And in connection with this important branch of rude amelioration, is a process by which quick lime is substituted for fire, in burning peaty soils. In some experiments made before the "Worthington Agricultural Society," the action of the lime was found to be very efficient, and gave the most perfect satisfaction to all who witnessd the process.

The productiveness of peaty soils, after being drained, is often very considerably increased by the application of clay or sand as a top dressing. When they contain ferruginous salts, as is not unfrequently the case, lime is absolutely necessary in reducing them to profitable cultivation. As thoroughness is at all times desirable in matters of this kind, the surface of the land should be completely freed from all substances which can in any way operate as an obstacle to successful cultivation. If the ground be incumbered with roots, they should be extracted and burned; if the surface be rough, the inequalities must be overcome by plowing, harrowing and rolling. But above all they must be thoroughly and systematically drained.

In reference to turning in green crops as a manure, we shall, perhaps, be pardoned for introducing in this place a few remarks of Sir Humphrey Davy, whose observation on any specific subject of agricultural improvement, few, probably, will question.

"When green crops are to be employed for enriching a soil, they should be plowed in, if possible, when the flower is opening; for in this stage they contain the largest quantity of soluble matter. Green crops, pond weeds, the parings of hedges or ditches, or any kind of fresh vegetable matter, not woody, require no preparation to be fitted for manure. When old pastures are broken up for tillage, not only is the soil enriched by the death and slow decay of the plants which have previously deposited soluble matter in the clod; but the leaves and roots of the grasses (vegetating just before the change of culture) afford saccharine, mucilaginous, and extractive matters, which become immediately the food of the crop; also the gradual decomposition of the grasses afford a supply of vegetable mould for several years."

THE SIGNS OF THE THRIFTY FARMER.

That some farmers thrive while others seem just to drag along is a palpable notoriety. In looking round among our farmers and noticing their operations, we have concluded that we could tell the thrifty farmer by a few unmistakable signs, even if we know but little about his affairs. You will notice something in his appearance, or the ideas which he appears to be following out, which will tell plainly enough that the farmer is getting ahead in the world.

What are the signs? They are not seen in the richness of his dress or the equipage with which he appears abroad, or in the display which he makes in public places. We have seen farmers out in even splendid attire with fast horses and fine trappings and carriages, who are slovenish farmers, and whose out-standing debts would more than swing the homestead. No, no; we do not take such things for evidence of the farmer's thrift. Then again we do not allow that it is any sign that he is getting "fore hand" when he is seen trading and trafficking, buying, selling and swapping horses, oxen, &c., even though he be a sharper and makes what he calls good trades. Such very frequently go "astern" by wasting their time in hunting up good bargains and neglecting their farms. These farmers do not love their farming; and they sell the sure gain and large profits of cultivation for a trifling present advantage, often purchased at the expense of conscience and moral honesty. Rather such symptoms are indicative of a want of thrift and healthy prosperity.

But when we see a farmer bending all his energies to improve his farm, and making inquiries as to the best methods of husbandry, patronizing agricultural papers, and taking a due interest in agricultural fairs, associations, &c.; when we hear him inquiring for improved stock, seeds, and fruit trees, we say that man is bound to prosper. Then when his teams are seen round the market places loaded with manure, ashes or other refuse matter which can be used to improve the soil, or when engaged on a liberal scale in drawing muck, turf or the like into his yard and filling his manure vats with it, we set it down that he is growing rich. Although he is making great outlays in purchasing and preparing artificial manures, we can not help thinking that he is putting capital into a bank that will yield great dividends.

The farmer who will excel and thrive *must* be a *farmer*, and give his thought and study and effort to his calling, the same as the eminent physician, lawyer or clergyman gives all his energies to his profession. When this is the case he will show it, and will be as proud of his farm frock as the parson of his cloak. He will not be clownish or indifferent to his outward appearance, but he will not be ashamed to be found dressed suitably for the farm. He will feel as easy and as much at home in his working garb when visited, as the merchant is behind his counter, or the lawyer in his office. When we meet a farmer about his appropriate business who holds up his head and shows a manly dignity, and yet courteous, if thrown among gentlemen of the cloth, we conclude, that there is a man who values his manhood, and is proud of his noble calling: that is the man who will thrive and secure a plentiful board for himself and family, and contribute something towards the support of the rest of mankind.—*Farmer and Mechanic, Lewiston Falls, Maine.*

For the New England Farmer.

STATE FARM AT TEWKSBURY ONCE MORE.

Messrs. Editors:—I admire the benevolence of the good Dr. B. in his willingness "to render services to the poor gratis." Such is the character of all eminent in his profession. I sincerely believe there exists in the breasts of high-minded physicians more generous sympathy than in any other class in the community, not more numerous. Whether their judgment of soils is equally to be relied on, I shall have some doubt, if this Dr. shall continue to say that the soil about this State Alms House, or anywhere within one hundred yards of it, is worth cultivating, or can be made so at any reasonable expense. I have seen this soil several times of late, and have inquired its character of others, who understand the subject much better than I do, and the uniform testimony is that it is *miserably poor*.

As to the interior arrangements of the establishment, I have not seen them. All I can say is, if they afford decent accommodations for 600 inmates, it shows that these State agents can build, for the *same money*, ten times the accommodations that the agents of the adjoining county build for theirs. I have heard of wells, 50 feet deep, having been dug, bricked and cemented, from bottom to top, without a bucket of water therein except what rained in from the heavens above. Whether this is the class of wells the doctor spoke of improving, I should like to be *advised*; and if he will tell me how such improvements can be made effectual for an adequate supply of pure water, I will tender him a fee in advance.

Mind you, Mr. Editor, I do not attach any blame to the Dr. in this matter, knowing that he had no hand in the structure; I only blame him for giving the high influence of *his name to bolster up* and *justify an egregious folly*.

Oct. 27th, 1854. ***

Worth Knowing.—It is said that a small piece of resin dipped in the water which is placed in a vessel on the stove, will add a peculiar property to the atmosphere of the room, which will give relief to persons troubled with a cough. The heat of the water is sufficient to throw off the aroma of the resin, and gives the same relief as is afforded by a combustion of the resin. It is preferable to the combustion, because the evaporation is more durable. The same resin may be used for weeks.

EXTRACTS AND REPLIES.

LIME FROM GAS WORKS.

Mr. Editor:—Please inform me what the lime, after being used for making gas, is worth, compared with stable manure?

Would it not improve pasture and mowing, if spread on them this fall, and if so, how much to the acre?

Would it benefit corn and potatoes next season, if spread and plowed in this fall?

I have used some of the lime the past season, for turnips, both rutabagas and flat, but it did not answer. Either I put on too much, or it was the dry weather—the seed did not come up; where I used ashes they have done very well. T. H.

New London, Oct. 27th, 1854.

SALT LYE—GAS LIME.

Mr. Brown:—I want information in relation to an article made at the hard soap manufacturers, and called by them, (at least in Hartford,) salt ley. What is its value compared with stable manure, or with the same bulk of night soil? What is the best use I can make of it? My soil is a sandy loam; swamp muck costs me, delivered, 25 to 30 cents per load. Shall I pile it up, and turn the ley top of it? How much ley will it take to fertilize, in the most economical degree, a cord of muck? How much should be applied to the acre for corn? would you advise to spread on or put in the hill? Or is it better adapted to some other crop? How would it answer for cabbages?

Would ammoniacal liquor or gas lime be suitable articles to apply to a compost heap in connection with the ley? J. R. S.

East Hartford, Conn., 1854.

Remarks.—Will some of our correspondents, acquainted with the subjects, reply to the questions in the two letters given above?

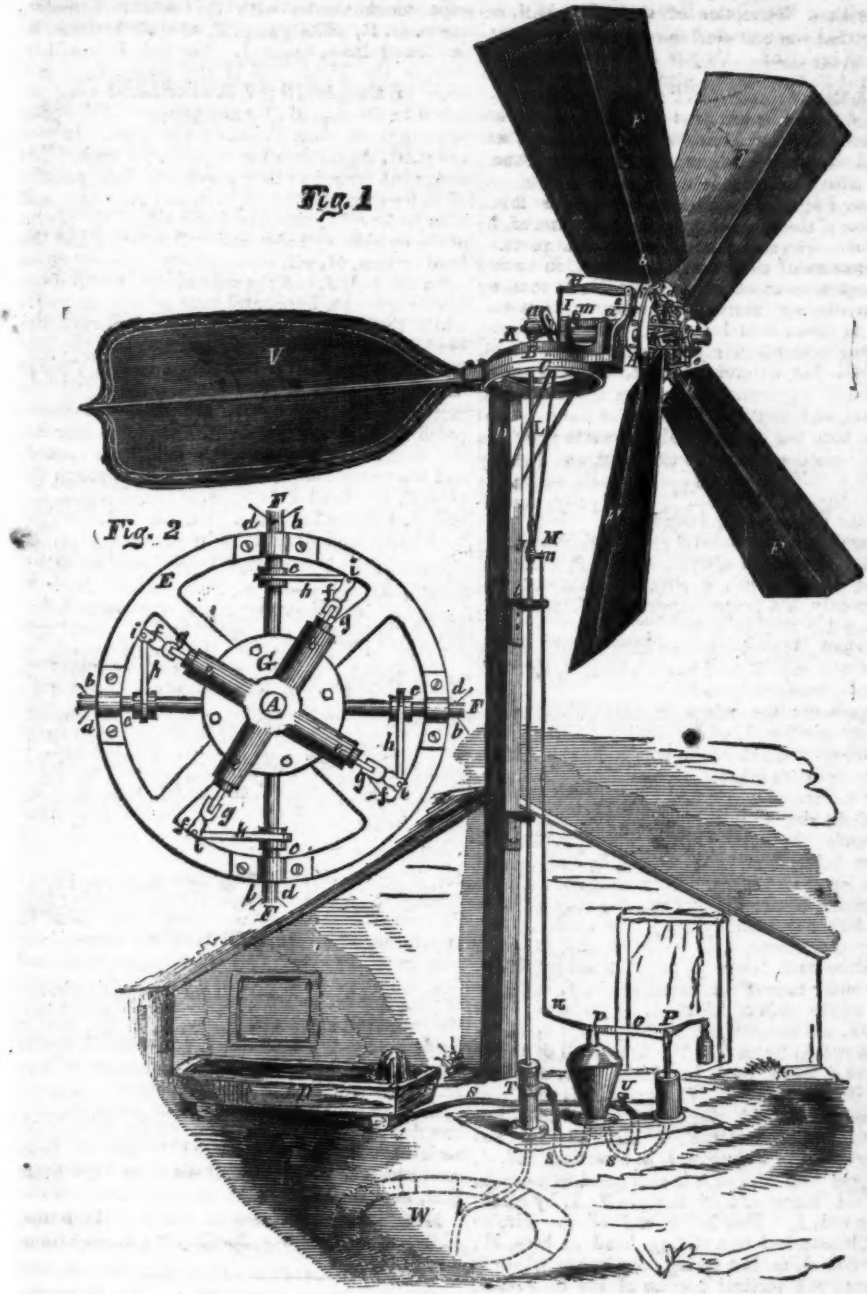
EARLY PEAS.

Mr. Editor:—I should like some light on raising early peas. Is it better to stick or rod them, or not? Which way do our market-gardeners do, with or without sticks? A. B.

Fitchburg, Oct., 1854.

Remarks.—To be successful in producing early peas, the first thing necessary is to get an early kind, and sow early. The product will probably be much larger, if they are provided with sticks. If "pea-brush" is convenient, use it. Make the experiment *yourself*, on the same land, crop manured alike, and sow at the same time, with the brush, and without it, and let us know the result next August. Will you?

☞ The number of hogs in the United States is said to exceed that of sheep by ten millions.



IMPROVED GOVERNOR FOR WIND MILLS.

IMPROVED GOVERNOR FOR WIND MILLS.

We make no apology for occupying so much space with a description of this Wind Mill, believing that the best machine of this kind will be one of great service to the farmer. The description we copy from the *Scientific American*.

The annexed engravings are views of an improvement in Wind Mills, for which a patent was granted to Daniel Halladay, of Ellington, Conn., on the 24th of August last.

Figure 1 is a perspective view, and figure 2 is a face view of the wing or sail ring, and parts of the governor. The same letters refer to like parts.

The nature of the invention consists in having the wings or sails attached to movable or rotating spindles, having levers or equivalent devices connected to them, said levers being also connected to a head with wings rotating on the same shaft. The head has a lever connected to it, which is operated by a governor that slides the head upon the shaft, and causes the levers or their equivalents to turn the wings or sails, so as to present a proper resisting surface to the wind, and thereby produce a uniform velocity of the sails, which are made to have a greater or less obliquity, according to the velocity of the wind.

A represents a horizontal shaft which works in suitable bearings, *a a*, upon a cap, B, said cap, working loosely upon a circular plate attached permanently to a proper support or frame work, D, figure 1.

The shaft, A, projects some distance beyond the edge of the cap, B, and has a wheel, E, figure 2, attached permanently to it.

F represents the wings or sails which are secured to spindles, *b*, said spindles passing radially through the rim of the wheel, E, and into its hub, the spindles being prevented from withdrawing by collars, *c*, which bear against the inner edge of the rim and bearings, *d*, figure 3, which are secured by screws over the spindles, the spindles being loose in the wheel, E, and allowed to turn upon their axes. Four wings or sails are represented, but any proper number may be used. G is a hub fitted loosely upon the shaft, A, and having projections, *e*, at its front end, to which projections small levers, *f*, are attached by pivots, *g*, the outer ends of the small levers, *f*, being secured to the ends of levers, *h*, by pivots, *i*. The levers, *h*, are secured permanently to the spindles, *b*, as shown in figure 2. The inner end of G has a groove *j*, turned on it, in which groove a forked lever, H, fits, figure 1. The lever, H, is bent, and has its fulcrum at *k*, and to the outer end of it a wire or rod, I, is attached, said wire or rod passing down in a groove, *l*, in a vertical rod, J, the upper end of which is connected to a crank, K, on the inner end of the shaft, A, by a connecting rod, L. The lower end of the wire or rod, I, is attached to a sliding head or boss, M; on the rod, J, *m*, is a spring, one end of which is connected to a vertical portion of the bent lever, H, and the opposite end to a projection on the inner bearing, *a*, of the shaft, A. The sliding head or boss, M, on the road, J, has a recess, *n*, in it, in which a fork at one end of a lever, O, fits, said lever having its fulcrum at *p*. The opposite end of the lever, O, is attached by a pivot to a piston rod, P, the piston of which works within a cylinder. R is a reservoir containing water, and S is a pipe which projects over the top of said reservoir; the opposite end of the pipe communicates with the outside cylinder, reservoir, R, and a pump, T, at their bottoms, as in dotted lines, figure 1. The rod, J, it will be seen, is the piston rod of the pump, T; U is a cock in the pipe, S; V is a horizontal wing attached to the cap, B, for the purpose of keeping the wings or sails, F, facing the wind. In case the shaft, A, revolves too rapidly, the cock, U, is somewhat turned so as to check the free passage of water through the pipe, S, and the water will then be forced against the under side of the piston of the outside cylinder, and will raise it, and the head or boss, M, will consequently be moved down upon the rod, J, and the wire or rod, I, will draw downward the horizontal arm of the lever, H, while the vertical arm will force outward the head, G, on the shaft. A, arrow 2, and the levers, *f h*, will turn the spindles, *b*, and the wings or sails, F, move obliquely to the wind, and the motion of the mill will be decreased in a corresponding degree. When it is desired to increase the motion of the mill, the cock, U, is opened, and the water having a free passage through the pipe, S, the head or boss, M, is raised upon the rod, J, and the head, G, on the shaft, A, brought back to its original position by the spring, *m*, the wings or sails presenting a greater surface to the wind. The spring, W, causes the lever, O, to resume its original position, or depresses the piston in the outside cylinder, when the water has a free passage through the pipe, S.

In figure 1 the pump is represented as drawing water through the suction pipe, *t*, from a well, W, and forcing it through the air chamber into the reservoir. A crank being on the shaft, A, on the horizontal revolving head, and the rod, I, connected to this crank, a reciprocating motion is given to the piston of the pump, thus drawing and forcing out the water by single stroke alternately. With one valve opening inwards, and one outwards in the bed plate of the pump cylinder, it can work as a single-acting force pump, driving the water through the air chamber into the reservoir without any other connections or apparatus. This windmill is chiefly intended for farmers where a moderate power is required, and can be applied to various kinds of work, as well as pumping water. The claim is for "attaching the spindles, *b*, of the wings, F, to the sliding head, G, by the levers, *h f*, and operating said head by the lever, H, and a governor of any proper construction for the purpose of giving the desired obliquity to the wings or sails, thereby insuring an equal motion and power during the variable velocity of the wind." One of these machines is on exhibition at the New York State Fair, in this city.

More information may be obtained by letter, addressed to Halladay, McCray & Co., at Ellington, Conn.

Singular Case. — The *Hallowell Gazette* tells the following story:

"A yearling steer belonging to Mr. Asa Morril of Manchester, Me., was found in the pasture of Ephraim Wadsworth of Litchfield, on Wednesday, 37th ult., nearly embedded in a quagmire. He

had been missed sixteen days and it is supposed that he was in the mud all the time. His head resting on the dry ground he was enabled to reach some bushes and thus preserved his life. He is now doing nicely."

For the New England Farmer.

THE BEAUTIES OF NATURE.

The lover of the beautiful in Nature searches not in vain at any season of the year, among her various operations, for something to awaken within his bosom those blissful emotions, which nought but the beautiful can awaken, and which, to those who experience them, are of more value than rubies. Sweet spring comes, and with its warm breath dissolves the snows of winter, melts the frozen lakes, unchains the ice-bound streams, which, as if glad of their release, make joyous music as they rush impetuously o'er their rocky mountain beds, or wind their way through the quiet valleys. And as it continues to breathe upon the earth, it wakens into life innumerable forms of beauty, from the tender grass beneath our feet, to the tall, majestic tree of the forest. How fresh and animated Nature now appears, as she arrays herself in her summer dress of green! What delicate forms and exquisite colors the flowers assume, as they unfold their soft petals to the genial sun! Beautiful birds, arriving from their distant southern homes, visit again their old haunts in

"The orchard, the meadow, the deep-tangled wildwood,"

and waken, with their melodious songs, the long-silent echoes of the woods and fields.

The glorious summer comes; and now the leaves of trees and plants having attained their growth, assume a darker and richer green; the growing grass and grain begin to wave luxuriantly in the soft summer wind. The flocks and herds are quietly grazing in their green pastures upon the hills, or reposing beneath some shady grove. And now let the child of nature go forth into the fields or ascend some height,

"And view the landscape o'er,"

or stand beside rushing cataracts, or wander far away into the dim old woods, and if, by what he sees or hears, his heart is not stirred within him, the beauties of nature can have little or no charms for him.

But nature pauses not, and summer soon ripens into mild autumn. The tall grass and gold en grain have fallen before the scythe and sickle; the delicious, red, yellow and purple fruit is being gathered from the trees and vines. There is but here and there a flower, and these are of less brilliant hues than those of summer. The birds, many of them have ceased their songs and flown to warmer skies. But Nature, as if to compensate for the dreary aspect of the fields, and the silence of the groves, now arrays herself in a most gorgeous robe of red and yellow, brown and green, with all their different shades and combinations. Let us now ascend some neighboring hill or mountain, and gaze upon the glorious picture spread out before us—such a picture as no mortal hand can paint! How beautifully the dark green pine, spruce and hemlock contrast with the red maple and oak, the brown and yellow chestnut, hickory and beech. And what words can describe the enchanting beauty of the woodland lake as it mirrors on its glassy surface, this wondrous scene! But

"Leaves have their time to fall,
And flowers to wither at the north wind's breath;"

autumn swiftly recedes before stern winter's icy tread. And some may ask, "Where now are the beauties of nature?" As I have said before, he that hath the spirit of beauty abiding in his soul, seldom passes a day, or hour, wherein he cannot find something in the outward world, which answers to the spirit within. The hour frost is beautiful as it glistens upon every twig and spire of grass, in the sun's morning rays. And so is the virgin snow as it spreads its soft white mantle upon the ground. But when winter holds his jubilee, and reveals his "countless treasures," when on some keen, clear morning,

"We waken to a world of ice;"

when every object, high and low, is covered with a thick, icy coating, and the sun, in cloudless splendor, shines upon the scene, who then can ask —"Where is the beautiful?"

"A shower of gems is strewed around;
The flowers of winter, rich and rare;
Rubies and sapphires deck the ground;
The topas, emerald, all are there.

"The morning sun, with cloudless rays,
His powerless splendor round us streams;
From crusted boughs, and twinkling sprays,
Fly back unloosed the rainbow beams."

And nature also, as if to make up for the loss of some of her charms on earth, now imparts new beauties to the heavens; she gives to the skies a deeper blue, adds new brilliancy to the stars; and paints the morning and evening clouds with fresher, brighter tints. Not only does Nature with lavish hand scatter her beauties o'er the land, but the sea also, she has filled with them:

"The sea! the sea! the open sea!
The blue! the fresh! the ever free!"

conceals in its heaving bosom, and strews along storm-beaten shores, many things both animate and inanimate.

How kind in our heavenly Father to give us,—not only the necessaries and comforts of life,—but also to satisfy to so great a degree, the inward longings of our souls for the beautiful and sublime. While gazing upon some beautiful scene in nature, or listening to some enchanting song, how often has the thought arisen—what, O, what must be the beauties, the melodies of "those everlasting gardens where angels walk," where resides the Author of all beauty, and harmony, if to sinful men is given such sweet music, such glorious scenes! S. L. White.

Groton, Oct., 1854.

For the New England Farmer.

FOREST TREES.

Friend Brown:—In answer to your correspondent "C. W." of Johnston, Vt., I would say that pine seeds should be sown at about the time they fall from the tree, which is in August and September for the white pine, and from November to April for pitch pine. August is the time to save the seed of the white pine, and this kind of pine is preferable to sow, as it is best for lumber, and leaves the land in much the best condition

for crops after the wood is off. The best young lot of pine seedlings I have ever seen, was sown with a crop of rye, after the rye was up; but they do well when put on any newly harrowed land without any covering. B. F. Cutler.

Pelham, N. H., Oct. 23, 1854.

UNITED STATES CATTLE SHOW.

THE NATIONAL AGRICULTURAL BANQUET—LIST OF PREMIUMS AWARDED.

The first *National* Cattle Show ever held in this country took place at Springfield, Ohio, under the auspices of the United States Agricultural Society, Oct. 25, 26 and 27, 1854. We have conversed with several gentlemen who were present on the occasion, who state that the show of cattle surpassed anything they had seen before. Gentlemen from England also stated that in their opinion so fine an exhibition of pure blood stock could not be made in that country, so great has been the draft upon their best animals for several years past.

The occasion was one of pleasant meetings and congratulations between persons engaged in the noble cause from all parts of our own country, and with those, even, from other countries, which can not fail to exert a most happy influence upon all. We are glad to encourage every peaceful occasion which will bring our people together from the various parts of the Union, believing that thereby our common interests will be promoted, and that many existing prejudices will be softened or entirely obliterated. We wish our limits would permit us to give several of the speeches made at the festive board, among which was a capital one by Cassius M. Clay, but they will not. Below, we give the opening remarks of our fellow-citizen, the Hon. Marshall P. Wilder, President of the Society, and which the editor of the *Republic*, published at Springfield, says were delivered in "a dignified and eloquent style." They certainly are appropriate to the occasion, and manifest an earnestness in the cause worthy of imitation.

Springfield, Oct. 26.—The Grand National Banquet, given by the officers and members of the United States Agricultural Society, took place this afternoon, upon the grounds of the Cattle Exhibition of the Society, and was an event long to be remembered by those who participated, and worthy of the great object that had collected together, from various portions of the country, so many distinguished gentlemen and eminent agriculturists.

A large pavilion, one hundred feet long and about sixty wide, built of wood and covered with canvas, was erected on the ground. Inside was arranged several tables, capable of seating one thousand persons comfortably, and cross-tables at the west end for the officers, invited guests and committees. Pursuant to the announcement of the Committee of Arrangements, a procession was formed on the front part of the ground, and preceded by a band of music, marched to the Banquet pavilion. First came the officers of the Society; next the invited guests; next the judges, committees, and then followed the public at large.

The tables were spread with profusion, and most admirably arranged. No liquors were used; a large number of ladies were present, and added much to the interest of the scene.

The Hon. Marshall P. Wilder, President of the United States Agricultural Society, presided; and, on his right and left, were seated the invited guests and officers of the Society.

After the asking of a blessing by the Rev. Mr. White, of Springfield, the assemblage disposed of the viands with much zest and spirit. When the repast was concluded, the President, Mr. Wilder, rose and spoke as follows:

Friends of Agriculture and Fellow Citizens:—In behalf of the United States Agricultural Society, under whose auspices this exhibition is held—in behalf of the citizens of Springfield, by whose liberality we are here assembled—and in my own behalf, I present you cordial salutations, and bid you welcome to this our festive board.

Come ye from the Pilgrim shores of New England, from the plantations of the sunny South, from the great valley and fertile fields of the West! Come ye from the walks of professional life, from the halls of legislation, from the marts of business, or from the high places of power—from whatever section of our land, from whatever station of society, *welcome*—a right hearty welcome—to the joys and pleasures of this occasion.

We have suspended our ordinary cares, toils and conflicts of business, and come up to this thriving city from our different and distant homes, to give expression to a common and important sentiment—the love of Agriculture.

We meet here for no sinister motive, no sectional object, no partizan purpose. We stand here upon a platform, broader, deeper and firmer than that of any politician or partizan; a platform upon which these may stand side by side with the noble yeomanry of our country, honoring them and honored by them. We are here for the promotion of a department of that great art, upon which, more than upon any other, depend individual happiness and national wealth, prosperity and power; an art which is the parent of every other industrial pursuit, and to which the special blessing of Heaven is vouchsafed.

I congratulate you upon the great interest awakened, in our age and country, in the cause of Agriculture; an interest manifested by the multiplication of societies and periodicals throughout the land. I congratulate you upon the wonderful improvement which science has recently made in the implements of husbandry, and in the arts of cultivation—upon the facilities for the transportation of agricultural products to the great markets of the world—and especially upon the improvement of our domestic animals, and the laudable enthusiasm which many of our worthy citizens have manifested in the importation of the best breeds of cattle.

It was the latter that suggested the idea of this exhibition, and it was deemed suitable by the Executive of the United States Agricultural Society to encourage this praiseworthy enterprise, and to accept the generous invitation of its projectors,

approved as it was by the Ohio State Board of Agriculture.

This is the first National Exhibition of Cattle ever held in America; and I do but express the common sentiment of this assemblage, when I say that it has more than realized the anticipation of all concerned. It has been eminently successful, and alike honorable to the citizens of Springfield, to the State of Ohio, and to this great Republic.

There have been about two hundred entries at this show. Among them we have seen such samples of the Durhams, the Herefords, the Devons, the Ayrshires, the Jerseys, and grade animals, as it has seldom or never been the happiness of man to behold in one show; and larger premiums have been offered for the encouragement of that department of American husbandry than ever before excited competition,

Among so many specimens of rare excellence, no wonder that the judges have found it difficult to decide upon their respective merits. Our only regret is that premiums cannot be awarded to each competitor. But there is one honor which seems sufficient to satisfy the ambition of any one, the honor of adding to the interest of this exhibition, and of thus promoting a pursuit second to no other in the country.

The report of these proceedings will occupy an important place in the transactions of this Society, and will go down to posterity honorably associated with the history of this place, and of American agriculture.

And here permit me to tender our most cordial thanks to the donors whose liberal contributions have supplied the funds for this exhibition, to its Board of Officers and Managers, to whose skill in designing, and whose energy in execution, we are so much indebted for the order, convenience and taste, which have characterized these proceedings, to the judges, on whom has devolved the onerous duty of awarding premiums; to the contributors, who so nobly have endured the risk and expense of placing their valuable animals on exhibition. Especially do we present our heartfelt acknowledgments to our distinguished guests who have honored us by their presence, and who, we trust, will instruct and encourage us by their speeches; to the good citizens of Springfield and vicinity, whose large hospitality we have enjoyed; and last, but first in our affections, to the ladies, whose presence adds so much to the interest and beauty of this banquet, and whose approving smiles encourage us in all the laudable pursuits of life.

Friends and Fellow-citizens:—In conclusion, permit me to extend to you the right hand of fellowship, and to invoke your aid in favor of the cause we seek to promote. While the nations of the Old World seek for glory in war and the acquisitions of the sword, let us cultivate the arts of peace, and let us remember that the history of a prosperous people is inscribed, not on the star spangled banner of military fame, or of political preferment and power, but it is seen in the peaceful triumphs of the plow, in fields of waving grass and grain, in thriving flocks and herds, in highly cultivated farms and gardens, in the refined arts of rural life and cultivated taste, and in the grateful incense which rises from the altars of an industrious, intelligent and virtuous yeomanry.

Mr. Wilder's remarks were received with interruptions of applause, and demonstrations of high approbation rent the welkin as he sat down.

The scene was for a few moments enlivened with some music, when the President read the regular toasts:

1st Regular Toast—The State of Ohio: it was her mission to lead in the march of civilization and improvement; well has she fulfilled the high trust—long may she reap the rich harvest of her planting.

Gov. Medill being absent, the Hon. L. D. Campbell, of Butler county, was called for to respond.

He said he regretted that the Chief Executive of the State was not present to reply to the toast. He regretted that one more competent had not been called upon. "I am not prepared," said he, "to discuss the great matter of the age—agriculture—and in relation to the different breeds of cattle, I am, emphatically, a 'Know-Nothing.'" He then spoke of the importance of sustaining, by the aid of General Government, the great cause of Agriculture. Millions were annually spent by Government, but nothing done to advance agriculture; it was because the people had not spoken. "Some raised constitutional objections, but," said he, "it could not be possible that our forefathers, in framing the constitution, intended to deprive us of advancing in agriculture. Congress appropriates for coast surveys, and a thousand other things, but what do they do for agriculture? They purchase a few seeds, and after distribution we find one paper of cabbage seeds to every 5,000 farmers. But this very fact proves there is power in Congress to promote agricultural interests. The people," he urged, "should speak at the ballot box—agriculture should be made a political test."

Mr. Campbell's remarks were received with considerable applause.

2d Toast—The city of Springfield: Springfield in Massachusetts, and Springfield in Ohio, renowned in the history of American agriculture—the mother giving birth to the first National Show of Horses; the daughter for giving birth to twins—the first National Cattle Show, and the first National Exhibition of Babies.

Responded to by Mr. Mason, of Springfield, who, after a few remarks, gave—

"Our Country: Whatever may belong to imported cattle, it is to the native born American citizens it must depend on for its prosperity."

3d Toast—The Ohio Board of Agriculture: The uniform friend of agriculture and rural economy. The annals of our country attest the value of its labors—may it never lack the sunshine of public patronage, or an abundant harvest of well-earned renown.

General Worthington, in behalf of the Ohio Board of Agriculture, responded in a brief and happy speech, and welcomed the guests and visitors from abroad.

4th Toast:—The Mississippi Valley—The great granary of Uncle Sam's Farm—Like the storehouses of Egypt, let years of plenty fill it to overflowing, and may it never lack a *Joseph* to wisely dispense its abundance.

The President said he would call upon our Brother *Joseph*, the Governor of Indiana, to respond to this sentiment.

Gov. Wright said that probably it would have

been better to have called up a brother Jacob, for though Jacob served 14 years for his wife, he had to serve 6 for his cattle. It was pleasing to him, to unite with so many agriculturists on this festive occasion. It would appear as though we have nothing but bank failures now-a-days; but these unions of the people show that the proper spirit is aroused. The Yankees have only one idea, and that is "tu hum." He wished the people of the West had more of that spirit. Politicians have taught the people two ideas—Washington City and the Penitentiary. He recommended electing the best men to county offices, and sending the worst stock to Congress. Home affairs he thought more essential to be attended to, than general legislation. Gov. Wright concluded by giving the following toast:

"The U. S. Agricultural Banquet—A union this day of the citizens of 18 States: may these associations continue to increase and multiply until we shall meet at the annual festivals, the citigens of each State of this Republic, and greet each other not as members of different sections of the country, but as citizens known and recognized by that proud and higher name, an American citizen."

Mr. Brown, President of the Illinois Agricultural Society, was then called for. He referred to the Mississippi Valley, its present and future progress in Agricultural art, and delivered a very good practical address, considering, as he said himself, he was no orator, but an agricultural laborer.

Hon. R. Moore, President of the Michigan State Agricultural Society, was next called for. He said he was a laboring man, a mechanic, and as there were better speakers present, he preferred listening to speaking. He concluded with the following toast—

"Michigan hitched in the traces of Agriculture, may she never balk."

6th Toast: The State of Kentucky—Renowned for the valor of her sons, and the profound wisdom of her great statesmen; among her illustrious yeomanry whom we cordially welcome to our board, we are happy to recognize her Brutus and Cassius, more noble than their namesakes in Roman history.

Cassius M. Clay, was vociferously called for, and was greeted with a hearty welcome. Mr. Clay made a pertinent and happy speech. Kentuck, he said, thought Cassius crazy, but the late change of events had probably not left him in the position of the one man who thought all the world crazy. He loved Kentucky and served her, but because he loved her more, he has been unable to praise her. As a representative of that State he could not agree that she was wanting in merit, for she built the first railroad in the West, and makes two blades of grass grow where one grew, besides making two pounds of good beef where one was before. Mr. Clay spoke for some time, and was listened to with much attention, and concluded by saying that he regretted Kentucky could not stand upon the same footing as the northern States in mechanics and manufactures.

Brutus J. Clay was called for, but he said "one in the family was enough," and declined speaking.

6th Toast.—The true conqueror—he defends the soil and renders it more worthy of defence; but he is the most useful and glorious of all conquerors who conquers a stubborn soil, and who, by enriching and deepening it, adds to our country a better and more permanent domain, than he who merely enlarges its surface.

Response, by Col. Williams, of Kentucky. The Col. impressed upon the minds of all, that his spear was converted into a pruning hook, and his sword into a plowshare. He referred to the advantages of association in agricultural societies, the interchange of views, and the benefits the farmer of small means would derive by experimental adventures of the capitalist. The commingling of the North and the South, on occasion of the present time, was alluded to by the Colonel, who soundly be-labored politicians and the press for their horrible action, misrepresentation and libel upon the inhabitants of both great sections of this star-spangled land.

7th Toast.—The British Colonies in America and the United States: closely bound together by rural pursuits, brought nearer by the wonderful achievements of science, and held fast by the golden links of commerce—one in origin, one in interest, and one in destiny.

Responded to by Mr. Isaac Askew, of Windsor, Canada West. He said, if ever he needed courage during his life, he needed it then. Being a North of England man, and as he noticed a number of editors and reporters present, he desired them to pay particular attention to his pronunciation of the H. (Your reporter noticed several other singular familiarities he took with the English language.) He made an excellent and useful speech, and in referring to the Reciprocity Treaty, spoke of it as the matrimonial alliance created by the Governor of Canada and the President of the United States. He did not desire to go into ecclesiastical matters, but said he would here publish the banns of the marriage, and would say, "If you know of any just impediment, now speak, or forever after hold your peace." (Great cheering.) After briefly referring to the mutual interest of the two countries in agricultural affairs, he said that he had never seen such an exhibition of cattle, especially short-horned, in this or any other country. Mr. Askew gave the Kentuckians a humorous rub upon the appearance of their stock—for "putting their hands too deep into the corn tub."

He spoke of the over-feeding of stock in a sensible manner, and gave some good and wholesome advice. In conclusion, he toasted—

"The ladies of Ohio, of the States at large, and Canada."

The President here stated that he had just received a request from Kentucky, that the next Exhibition of the Society should be held in that State. It would be referred to the Board, and favorably considered.

8th Toast—"The State of New York, the Empire State of the national brotherhood. The entrenched ground for the protection of American Agriculture."

Col. Allen, of Buffalo, responded in an appropriate and happy speech. He spoke pointedly upon the importation of stock, and seemed to entertain that the United States was capable of rear-

ing equal, if not better stock, without importing. He thought but very little was gained in the new introductions. The relative position of New York with stock-raising regions of the west, was handled well by the Col. He admitted the advantages possessed by the West over the Empire State in soil and local position, but the immense resources of the former built up the internal improvements of the farmer, for without New York improvements, western products would find no easy access to the Atlantic seaboard.

9th Toast—The State of Delaware. Although one of the smallest States in the Union, she sends us one of her sons, who is not only able to speak for himself, but also for his State and his country.

Response by Mr. Holcomb, of Delaware, one of the Vice-Presidents of the Society, who spoke of the excellence of the State Farmers' College, of Delaware, where a thorough collegiate education was taught, in connection with scientific agriculture. Mr. Holcomb made a very good speech, but it was slightly abstruse.

Mr. Brown, editor of the Ohio Farmer, then offered the following:

Massachusetts.—Famous in history as the battle-ground of Freedom; famous at present as the abode of taste and refinement, and equally famous for the energy, intelligence, and enterprise of her sons.

This called out Col. Wilder, who said he had no speech to make. Massachusetts was noted as a State of granite and ice, but she raised men. She needs no one to speak for her; she speaks for herself. There are her institutions.

Col. James, of Urbana, O., was next called for, and made some few remarks, in which he differed somewhat from several other speakers, relative to the aid and assistance of the general government in agricultural matters.

Col. Sanders, of Ky., on being called for, spoke in high terms of the exhibition; said he could not talk, but all his views upon agriculture had been published. He had imported and raised cattle; reared race horses, cultivated; had lived seventy-four years, but had not learned to make a speech.

The President then read the following resolution, which was unanimously adopted:

Resolved, That the thanks of this assembly be rendered to the Local Board of Managers, to the Marshals and other officers, to the Editors and Reporters of the Press, and to the citizens of Springfield for the worthy part which they have respectively taken in this magnificent exhibition, and in the excellent accommodations for those who have attended it.

After which Hail Columbia was performed by the band, and the assemblage separated.

There appeared to be but one expression of feeling among the great crowd assembled together from different points, and that was of pleasure. All seemed satisfied and pleased at the banquet, and the most cordial sociability and feeling prevailed.

At night, a number of speeches were made in the street fronting the Anthony House, in Springfield, by Gov. Wright, of Ind., Geo. Waring, the celebrated agricultural lecturer, of New York, and others; a large number of persons were in attendance, and the speakers were listened to with a lively interest.

THIRD AND LAST DAY.

COMPLETE LIST OF THE PREMIUMS AWARDED.

Springfield, Oct. 27.

The attendance to-day on the ground was not very large, and was composed principally of the Stock owners and their numerous friends, anxious to learn the result of the labors of the awarding committee.

The ring was opened by the sweep stake entries for the best bulls and fine cows or heifers, of one year and upwards, from any one herd—premium $500.

Five entries were made as follows:—Brutus J. Clay, of Bourbon county, Kentucky; Col. S. Meredith, of Wayne county, Indiana; W. O. Pierce, of South Charleston, Ohio; Jacob Pierce, of South Charleston, Ohio; Dr. A. Watts, of Chillicothe, Ohio.

Eight judges were appointed, no two from the same State. They were four or five hours engaged in examining the respective merits of the animals, and finally, as your reporter understands, agreed to disagree, they being equally divided upon the Kentucky and Indiana stock.

PREMIUMS,

AWARDED AT THE NATIONAL CATTLE SHOW AT SPRINGFIELD, OHIO.

The labors of the committees, particularly those upon "Short Horns," were extremely arduous, and continued, with little interruption, during Wednesday and Thursday. On Friday, about 12 o'clock M., the reports of all, except the committee on sweep-stakes, were received by the Secretary and read from the stand, as follows:

DURHAM BULLS.

3 years old and upward.

1st premium, $300, to Perfection; bred by Jeremiah Duncan, owned by Edwin G. Bedford, both of Paris, Ky.
2d prem., $200, to Sheffield, owned by J. W. Robinson, of Madison county, Ohio.
3d prem., $100, to Belmont, owned by Caldwell & Co., Fayette county, Ia.

2 years old.

1st prem., $200, to Locomotive, owned by Brutus J. Clay, Paris, Ky.
2d prem., $150, to Colonel, owned by R. G. Dun & Co., Madison county, Ohio.
3d prem., $75, to Lafayette, owned by J. M. Sherwood, Auburn, N. Y.

Yearlings.

1st prem., $150, New Year's Day, owned by Chas. M. Clarke & Co., Springfield, Ohio.
2d prem., $100, King Cyrus, George M. Bedford, Paris, Ky.

DURHAM COWS AND HEIFERS.

3 years old and upward.

1st prem., $200, to Lady Stanhope, owned by Brutus J. Clay, Paris, Ky.
2d prem., $150, Duchess, William Palmer, Fayette county, Ohio.
3d prem., $100, Clara Fisher, S. Meredith, Cambridge, Ia.

2 years old.

1st prem., $150, Fashion, J. Steddon, Warren county, Ohio.
2d prem., $100, Laura, Brutus J. Clay, Paris, Ky.
3d prem., Mary Clay, $50, S. Meredith, Cambridge, Ia.

Yearlings.

1st prem., $100, Louan, Jeremiah Duncan, Paris, Ky.
2d prem., $75, Easter Day, Charles M. Clarke & Co., Springfield, Ohio.

DEVON BULLS.

3 years old.

1st prem., $100, Know Nothing, N. W. Smith, Warren county, Ohio.
2d prem., $75, Herod, L. G. Collins, Montgomery county, Ia.

2 years old.

1st prem., $30, Moulton, L. F. Allen, Buffalo, N. Y.
2d prem., $60, Jake, E. Merritt, Clark county, Ohio.

Yearlings.

1st prem., $50, Priam, L. G. Collins, Ia.

DEVON COWS.

3 years old.

1st prem., $100, Sappho, L. F. Allen, Buffalo, N. Y.
2d prem, $75, Frances, L. G. Collins, Montgomery county, Ia.

2 years old.

1st prem., $75, Dolly, E. M. Merriweather, Todd county, Ky.
2d prem., $50, Devon, N. W. Smith, Warren county, Ohio.
A yearling heifer of L. G. Collins was commended.

HEREFORD BULLS.

3 years old.

1st prem., $100, Curly, Thos. Aston, Elyria, Ohio.

2 years old.

1st prem., $80, Mystery, W. H. Sotham, Tioga county, N. Y.

1 year old.

1st prem., $75, Defiance, Thos. Aston, Elyria, Ohio.

HEREFORD COWS.

3 years old.

1st prem., $100, Bombazine, W. H. Sotham, Tioga county, N. Y.
2d prem., $75, Duchess, Thos. Aston, Elyria, Ohio.

2 years old.

1st prem, $75, W. H. Sotham.

AYRSHIRE BULLS.

3 years old.

1st prem. $100, Dandy, P. Melendy, Hamilton county, Ohio.

2 years old.

1st prem. $80, Wallace, T. W. Barber, New Paris, Ohio.

1 year old.

1st prem., $75, Ducas, P. Melendy.

AYRSHIRE COWS.

3 years old.

1st prem., $100, Lassie, P. Melendy.

2 years old.

1st prem., $75, Alice, P. Melendy.

JERSEY BULLS.

3 years old.

1st prem., $100, Pat 4th, R. L. Colt, Patterson, N. J.

JERSEY COWS.

3 years old.

1st prem. $100, Dun, R. L. Colt.

2 years old.

1st prem., $75, Jersey, owned by same.

1 year old.

1st prem., $60, Patty, same.

MISCELLANEOUS.

1st prem., work oxen, $50, C. Fullington, Union county, Ohio.
2d prem., fat ox, $50, B. Stedman, Cleveland, Ohio; weight 2,500 pounds.
3d prem., fat cow, $50, J. W. Ware, Fayette county, Ky.; weight 2,240 pounds.
4th prem., milk cow, $50, J. W. Brock, N Petersbmrg, Ohio.
5th prem., $50, steer, J. W. Ware, Fayette county, Ky.
6th prem., $50, bull calf, W. D. Peirce, Clark county, Ohio.
7th prem., $50, heifer calf, W. W. Trasher, Fayette county, Ky.

The committee on sweep-stakes, being a premium of $500 for the best herd of a bull and five cows or heifers of any breed, were unable to agree, after a thorough examination and full deliberation. The entries were five in number, all of them superior herds. When they reported their disagreement, the hour was late and the sales of stock had commenced; it was found impossible to call a new committee, and the first one refused to have any additions made to their number. Mr. Wilder and the other officers did every thing that could be honorably done, to lead to an award of the sweep-stakes, but without effect. It was an important feature of the great show, and of the utmost importance to those who presented their fine herds for competition; it is, therefore, to be regretted that a different result was not arrived at.

GRASS LAND---GRASS SEED.

It has frequently been remarked by practical men, that, in laying down lands to grass, the bestowment of a few extra pounds of seed, is not to be considered by any means as a useless expenditure of capital, but the reverse. Farmers often subject themselves to serious inconvenience and loss, by being too parsimonious in this particular; they proceed upon the erroneous principle that all the seed sown will germinate, and that all that germinates will produce plants; whereas the truth of the case is, that under ordinary circumstances, a considerable portion of the seed never vegetates, or if it vegetates, does not obtain root, or produce plants. When allowance is made for loss, and for defect in seed, when there are any indications that it is of a bad quality, we shall hear less complaint that "grass seed has not taken well." On light soils, which are deficient in retentive power, and where the requisite degree of compressibility is not easily attained, nothing is more certain than that a considerable portion of the seed committed to it—unless in a peculiarly modified season—will fail to sprout. The rapid descent of such soils, and their extreme permeability to atmospheric influences, cause them to become speedily *dry*—a condition in which no seed can be made to develope healthily, or if it should, to produce a vigorous plant. The application of an extra allowance of seed, followed by the roller for the purpose of consolidating the surface, is indispensable to success in stocking lands of this description.

For the New England Farmer.

SOWING SEEDS FOR FOREST TREES.

Messrs. Editors:—It is gratifying to see inquiries how worn fields can best be replenished with forest trees. There are many such fields in New England, and the earlier they are converted into forests, the better will the public interest be promoted. No knowledge that has been acquired by experience should be withheld from inquirers. "C. W." is informed that it is best, if there is much sward on his land, to plow and sow rye and pine seed at the same time. It is now too late in the season to gather the seed of white pine, but the seed of yellow pine may be gathered till winter. Probably white pine seed may be obtained at the stores. If the planter chooses to have order in his forest as in the orchard, he will be inclined to plant but one kind of trees; but when we sow broad-cast, it is well to mix different kinds of seed. "C. W.," I think, may do wisely to wait till another year, plow his land in summer and gather his own seed, which I suppose should be done in the State of Vermont the last of August, or the very first of September; a very little frost causes the seed of white pine to fall out.

M. A.

Pembroke, Oct. 24th, 1854.

WHAT BOSTON HAS DONE FOR AGRICULTURE.

AGRICULTURAL STORES OF BOSTON.

Hiram Blackmer, 34 N. Market; Joseph Breck & Son, 51 & 52 N. Market; M. & F. Barr, 23 Broad, corner Central; Hovey & Co., 7 Merchant's Row; Parker, White & Gannett, 59 & 63 Blackstone; David Prouty & Co., 19 N. Market; Ruggles, Nourse, Mason & Co., Quincy Hall, S. Market; Nourse & Co., Commercial, near Quincy Market.

HORTICULTURAL AND SEED STORES.

Azell Bowditch, 54 School; Curtis & Lincoln, Washington, corner Hayward Place.

AGRICULTURAL AND HORTICULTURAL SOCIETIES.

Mass. Society for Promotion of Agriculture.—John C. Gray, President. Abbott Lawrence, Vice President. Benjamin Guild, Recording Secretary. Josiah Quincy, Jr., Corresponding Secretary. Thomas Motley, Jr., Treasurer.

Mass. Board of Agriculture.—His Excellency, Emory Washburn, His Honor, Wm. C. Plunkett, Ephraim M. Wright, Secretary of State, ex-officers. Marshall P. Wilder, Nathaniel Wood, Edward Hitchcock, Robert C. Winthrop, and others, Members of the Board. Charles L. Flint, Secretary. Rooms at the State House.

Mass. Agricultural Society.—J. S. Cabot, President. B. V. French, Cheever Newhall, E. M. Richards, Josiah Stickney, Vice Presidents. Ebenezer Wright, Corresponding Secretary. W. C. Strong, Recording Secretary. Samuel R. Austin, Treasurer. Rooms, Horticultural Hall, School Street.

Boston Agricultural Papers.—Boston Cultivator, Otis Brewer, 22 N. Market, weekly; American Veterinary Journal, George H. Dadd, 1 Haymarket Square, monthly; Fruits of America, C. M. Hovey, 7 Merchants' building, monthly; Gardner's Magazine, W. S. King & Co., 54 School, monthly; Horticulturist, J. Breck & Son, 51 N. Market, monthly; Journal of Agriculture, W. S. King & Co., 54 School, monthly, Magazine of Horticulture, C. M. Hovey, Editor, 7 Merchant's Row, monthly; Massachusetts Ploughmar, W. & W. J. Buckminster, 51 N. Market; N. E. Farmer, Raynolds & Nourse, Quincy Hall, weekly; Practical Farmer, William S. King & Co., 54 School, weekly.

It is now the harvest season with the two millions and a half of farmers of this agricultural nation. So great is the interest in the cultivation of the soil, that more than half the States of this Union hold State Fairs this autumn, of from two days to six, and the agricultural exhibitions of towns and counties may be reckoned by hundreds.

At first thought, we may ask, what Boston has to do with agriculture? It is a commercial, and not an agricultural town. This is true, but without agriculture commerce cannot flourish, and some of the best friends and patrons of agriculture have been men who were connected only with its merchandise.

But Boston has a nearer connection with agriculture. This whole peninsula was nothing once but the farm of Rev. William Blackstone, who owned its then 700 acres, and cultivated such a portion of them as he was able. He was here several years before John Winthrop and his party, and some writers go so far as to say that, solitary and alone he cultivated his garden and orchard in the spring, where he lived in the vicinity of the Lowell Railroad station. It is certain that he was here, and that he invited Winthrop to his peninsula farm. We soon find that the new comers by right, or by might, were so well pleased with Shawmut, with its "sweet and pleasant springs," that they confined Blackstone to 50 acres of his original peninsula, and, at length, reduced him to six acres, by a formal purchase. These acres were around his humble house, and were cultivated by this first farmer of Boston.

But Blackstone, who seems to have been an eccentric character, preferring solitude to society, remained only some ten years in Boston, after which he removed to Rhode Island, where he divided his time between books and agricultural pursuits, until he died in 1675. His farm has now the name of the Whipple farm, and is situated in the town of Cumberland.

There are other early claims of Shawmut in connection with agriculture; for here, it is supposed, the Indians enjoyed a favorite home, and raised the corn that bears their name. The clearings on this peninsula, when Winthrop arrived, indicated very clearly that it was the farm of the Indian before it was that of Blackstone.

As early as 1634, we find that the lands of the vicinity of Boston were divided among the principle inhabitants by a court which was convened at Boston; from 200 to 1000 acres being granted to each. Among these grants, we notice that 200 acres was granted to Rev. John Wilson, pastor of the first church in Boston. This land was bounded on the north by Medford. There was a provision in these grants, that if the lands were not improved, nor built upon in three years, they should revert to the court. At this period, Muddy River (now Brookline) was a favorite farming region. Wood, in his New England Prospect, describes it as a place where "are good grounds, large timber, and store of marsh land and meadow." He continues, "in this place the inhabitants of Boston keep their swine and other cattle in the summer, whilst the corn is on the ground at Boston, and bring them to the town in the winter." At Muddy Brook was the farm of Rev. John Cotton, of Boston, who was a colleague of Mr. Wilson, and in honor of whom this town was named; since he was previously settled in Boston, England. This farm, in 1848, included the two estates owned by John Kenrick and Moses Andem, of Brookline.

As for Boston itself, at this early period, there was less opportunity for large farms. Even then, the wood was mainly procured from Noddle's Island, from Dorchester, and Muddy Brook. Wood says of it—"This place hath very good land, affording rich corn fields, and fruitful gardens, having likewise sweet and pleasant springs." At the same time he spoke of one of our islands, the Governor's, "where is planted an orchard and a vineyard." Mr. Wood speaks further of the Boston of 1633 as follows:—

"Boston is two miles north-east from Roxbury. Their greatest wants are wood and meadow ground, which were never in that place, being constrained to fetch their building timber and firewood from the islands in boats, and their hay in lighters. It

being a neck, and bare of wood, they are not troubled with three great annoyances, of wolves, rattlesnakes, and mosquitoes. These that live here upon the cattle, must be constrained to take farms in the country, or else they cannot subsist; the place being too small to contain many, and fitted for such as can trade into England for such commodities as the country wants; being the chief place for shipping and merchandise."

It is quite remarkable that this writer, even then, had a prospective view of the commercial importance of Boston. If the inhabitants of that period were not troubled with mosquitoes, it is more than we can say of the present season, though for rattlesnakes we must go as far as Milton, and for wolves without the State. Writers suppose that Mr. Wood was mistaken, when he asserts that Shawmut, or, as the English first termed it, Trimountain, had no wood, though there was less then in surrounding places.

What Mr. Wood says at that period of the neighborhood of Boston, indicated that it might be distinguished as it has been for its agriculrure and horticultare, as Boston would be for its devotion to commerce. He says—"The inhabitants of Roxbury have fair houses, store of cattle, impaled corn fields, and fruitful gardens." Dorchester has "very good arable ground, and hay grounds, fair corn fields, and pleasant gardens, with kitchen gardens." Of Lynn he asserts, "there is more English tillage than in New England and Virginia besides: which proved, as well as could be expected, the corn being very good, especially the barley, rye and oats."

We cannot tarry to trace the progress of agricultural pursuits in Boston and vicinity down to the close of the last century. Suffice it to say, that even this city has never been without its small gardens, and orchards, which, however, have grown less and less, as the ever increasing wave of commerce has rushed upon them, and finally flowed over them, until no vestige was left of their former beauty. Even as late as the period of John Hancock, it is said that "his lands were originally of orchards and gardens."

The formation of the Massachusetts Society for the Promotion of Agriculture, in 1792, is due to the influence of Boston and vicinity. Here its periodical, the *Repository and Journal*, was published and here was the centre of operations. Hon. Thomas Russell was its first President, and among its officers and members we find such men of Boston as Christopher Gore, James Bowdoin, Theodore Lyman, Robert T. Paine, and Josiah Quincy. And then the neighborhood gave the society John Adams, Fisher Ames, Martin Brimmer, Elbridge Gerry, and others. These were among the early members of the society.

A particular object of this society was to bring to the attention of our farmers the agricultural improvements of Europe, and to import from thence the finest kinds of stock. This last work has been continued to this day, and we owe it much to this society, and, perhaps, we may say, mainly, that we may see in Massachusetts fields and barns the finest specimens of the Durham, Devon, Ayrshire, Alderney and Jersey stock.

In connection with this society, there were annual exhibitions, or cattle shows at Brighton, for many years. The society offered premiums as high as $100 each for the best articles in various departments, or for some important agricultural discovery. These shows were annual schools for the people, and had a great influence in leading to other and similar shows in various parts of the State, and to the general improvement of agriculture. It was, no doubt, through the influence of this society, that the Middlesex Society of Husbandmen was formed in 1803, and the Berkshire Agricultural Society in 1811—which former claims to be the first county society in the State, and that county and town societies have been organized so extensively throughout the State.

But, perhaps, as useful a movement of this society as any was the publication of periodical under its auspices, which began in 1814, and was published on the first of January and July. The work was exclusively devoted to agriculture, and the papers were among the most able, thorough and practical that we have ever seen on the subject of agriculture. This publication was termed the Massachusetts *Repository and Journal.*

After this, and, probably, stimulated by the example of the first agricultural journal in Massachusetts, arose the *New England Farmer*, in this city, in 1822, under the auspices of Thomas Green Fessenden—a journal that exerted so wide and beneficial an influence. Since that period, the work has gone on until we have no less than four weekly, one bi-monthly, and five monthly periodicals in this city, and devoted to agriculture in its various branches. These journals, especially those published weekly, circulate very widely, some of them issuing as many as 20,000 or more each week. Such an influence is constantly going forth from Boston to promote good tillage; and hence large and valuable crops. And it is generally agreed that the improvement of agriculture in New England and in the country, and the wonderful improvement of the last twenty years, is more to be attributed to agricultural publications than to any other influence—and some would say to all other.

There is another influence which Boston has exerted upon the agriculture of the country and the world; and that is, through agricultural stores. The oldest agricultural store established in this city is that of Joseph Breck & Son, which was opened in 1828. One store after another has been established since, until there are now ten agricultural and horticultural stores, that are supposed, with the agricultural papers, to employ capital to the amount of $1,000,000, and to do an annual business of $2,000,000. Indeed Boston is the head-quarters of this business, having larger and more important stores than any to be found in this country. And it is asserted with great confidence that the agricultural stores of Ruggles, Nourse, Mason & Co. is the largest in the world. Foreigners say as much, and the Yankee who travels up and down the store over the Quincy Market, will be pretty sure to guess that it is the biggest in all creation.

This firm is engaged in the manufacture, as well as in the sale of every article that the farmer and gardiner uses. In Worcester, where their principal manufactory is, more than 200 men are employed, and more than thirty are connected with their sales-room in this city. In this business they use from six to seven tons of iron daily, Their plows, cultivators, mowing machines, clover, grass, garden and field seeds, etc., find their

way to South America, the Canadas, the British Provinces, to Australia, Africa, and even to Austria. If Austria sends for our plows, who knows but she will ask for republicanism next? The progress of this house is quite wonderful, when it is considered that it began business in Worcester in 1833 with only three hands, and has only been established in Boston since 1840.

The other houses mentioned at the head of this article, do quite as heavy business in this department. And to show the progress of the business, it may be mentioned that the large store of Nourse & Co. is but just opened, and that the beautiful fruit and floral store of Curtis & Lincoln has very lately been thrown open. Let any one travel through these stores, let him behold the fruits and flowers, the seeds destined for mother earth, of every size and description; the plows, large and small, for hill side and for plain, for light and for heavy soils; let him survey the beautiful forks and cultivators, the churns, that will almost make butter alone; the mowing and reaping machines, and even hay-makers, and he will be amazed at the perfection of the tools that are put into the hands of our farmers, and at the multitudes of labor-saving machines that have been invented—now that labor is so dear and scarce.

Mowing machines were only introduced into New England, to any extent, the past season. They have been used by western farmers for some six years. By the experiments made in New England, though not in all respects satisfactory (for the farmers must learn how to use them, and the machines may need some slight improvement,) it has been ascertained that a farmer may gather his hay crop for one-half of the ordinary expense, and some would say one-third. Even during the first season, of the introduction of these machines into New England, 300 of them have been sold by a single house; and it is supposed that the same hands may sell 1200 the coming season.

The rise of the Massachusetts Horticultural Society in this city, in 1829, was an omen of much good in the department to which it has been devoted. Its annual exhibitions, as fine as any in the world; the frequent addresses delivered before it; its weekly display of fruits and flowers; and the indefatigable efforts of its members, have made the gardens and orchards in this vicinity famous over the country and the world. In the late exhibition of this society, Col. M. P. Wilder displayed 273 varieties of pears. This fact is mentioned, as an illustration of the efforts that are put forth in a single department of fruit growing.

A member of this society commenced, in this city, the publication of the Magazine of Horticulture in 1853. It is the oldest publication of the kind in this country, and its present editor, who has edited it from the beginning, C. M. Hovey, Esq., is the oldest horticultural editor in America. The late lamented Downing was, when a youth, a contributor to this magazine, during the first year of its publication. We can hardly estimate the amount of good an original publication of this kind has done in a period of twenty years. Under the impetus given by the horticultural paper and societies, nurseries of trees have sprung up in all this region, where trees are sent to California, and the uttermost parts of the earth. Under the same influence, landscape gardening has been taught scientifically, and has thus been practised, so that the whole vicinity of Boston is one extensive and elegant garden—causing the visitor, from whatever part of the world, to exclaim, "beautiful, beautiful!"

Most of the agricultural implements sold in Boston are manufactured in various parts of New England. Worcester sends forth plows, cultivators, mowing machines, by the thousands and millions. The same city, in connection with Millbury, manufactures many hard-ware articles, used by the husbandman. Easton gives us Ames' unequalled shovels. Vermont sends forth countless forks. West Fitchburg, New London, N. H., and other towns in Rhode Island, manufacture any quantities of scythes. Ox yokes and bows are made in vast numbers in various places in New England.

It would be interesting to dwell upon the wonderful improvements in the manufacture of these various implements. Within the recollection of men in middle life, cast iron plows were unknown, and when they were first introduced, the farmers were actually afraid they would break in turning over their first furrow. The plows of the olden times, and times not very old, were of wood, with comparatively little iron of any kind about them. There is a plow now under exhibition in the New York Crystal Palace, that was owned and used by Roger Sherman, of Connecticut. This plow is of wood, with a wrought iron share, and is quite a curiosity, particularly as compared with the splendid plows of the present day.

It is now generally acknowledged that our agricultural implements are superior to any manufactured in any other portion of the world. And we all remember how astonished John Bull was at the display of Jonathan in this department, in the London exhibition. And, as nature has given America the best soil under the sun—that great requisite to good farming—we see not why this nation is not to be the best farming nation in the world, and that at no distant day.

We come to the conclusion, then, that Boston though only the metropolis of sterile New England, has been the fountain head of American agriculture. Boston was, itself, once only a large farm. Its gardens were famous for two hundred years, and have hardly disappeared. In Boston was organized the first State agricultural society of this country, which had accomplished considerable before the now great agricultural State of Ohio was organized as a State in 1802, and while much of New York was a howling wilderness. Here, too, was established the first American horticultural journal, and here is the greatest agricultural ware-house in the world. And who have done more for American agriculture than the *men* of Boston and vicinity; than such men as Lowell, Webster, Coleman, Fessenden, Manning, and Downer among the dead; and Wilder, Cabot, Hovey, Buckminster, Gray, Quincy, Motley, Allen, and others among the living? And at no other time in our history has there been such an interest in this subject in Boston, and in the commonwealth, as at the present moment. Our merchants and mechanics are generally looking forward to the day when they shall have their little or large farms well tilled. Indeed, one is now esteemed hardly a man, unless he has his

country-seat, and can talk about his herds and his flocks. All this is well. Agriculture is a grand subject to be interested in. Its practice has a fine influence upon the mind, and, rightly pursued, a purifying influence upon the heart. It was the first pursuit of man, and it shall be the last; and without it all other interests must perish from the earth.—*Boston Post.*

For the New England Farmer.

FALL PLOWING.

Mr. Editor:—It is an old adage that any fool can make money, but it requires a wise man to keep it, and the same is true relative to manure. I am led to this reflection by seeing my neighbor farmers all about me plowing their corn, potatoe and other lands, which were highly manured last spring, thereby exposing the unexhausted manure (which laid securely buried,) to all the ensuing fall, winter, and spring rains, by which means one-fifth of all the manure applied is lost. If any one disbelieves the assertion, let them try the experiment and they will be satisfied of its truth; it will cost them nothing to try. Now if every farmer wastes one-fifth of his manure, what is his loss! I will estimate it at from five to thirty-five dollars, according to his circumstances—enough to pay all his taxes; in the aggregate for the State of New Hampshire, making a large sum, which had much better be saved than lost. The theory that we cannot plow our land too much is correct, if plowed at a proper season; but to plow our manured lands in the fall, because our teams are then strong, &c., is a very bad practice.

I believe that every one that you may induce to suspend plowing in the fall, as above, if but one acre, can well afford to subscribe for your paper two years.

Yours with respect, H. S. Perrin.

Orfordville, N. H., 1854.

Remarks.—We thank our correspondent for the expression of his opinion about *autumn plowing*, although our own experience has led us to very different conclusions. We are earnest advocates of this practice, believing that teams are in better condition to plow in the autumn,—that the farm work is generally less pressing,—that manure well mingled with the soil in the spring, becomes so much decomposed and incorporated with the surrounding particles, as not to lose its valuable properties by exposure,—that there is not sufficient heat to evolve its ammonia, and that the soil, by being light and porous, receives from the atmosphere and snows valuable additions throughout the winter. The opinions below are expressed by "S. B. F.," in the *Rural New-Yorker*.

Fall plowing I think an important item in farm operations, for past experience has taught me that better crops of barley and oats may be secured, *on any of our lands*, by plowing in the fall, and we can invariably get them in better condition. I consider it indispensable, however, that no surface water be allowed to remain long, and neglect in this respect I believe to be the cause of so many failures in the experiment. Some say, "plow dry lands, but you must not plow those which are wet;" but with all deference to the opinions of such, I (from past experience) advise to the contrary.

If I have a rather wet clayey lot, which is intended for spring crops, I by all means plow in the fall; not, however, in an indfferent manner, as is the practice of some, but with great care, putting it in narrow beds and cutting cross furrows or ditches, in order that all the surface water may quickly run off and not lay upon the land to harden it. In this condition the legitimate effect of the frost is to pulverize the soil, and when spring comes, once harrowing, and then going over it with the wheel cultivator, will put it in as good condition for sowing as it possibly can be.

For the New England Farmer.

NOVEMBER MONTHLY FARMER.

Considerable space in this number is occupied by accounts of various Cattle Shows in New England, by the valuable report of the proceedings and discussions of the American Pomological Society at its meeting in Boston, and by several articles on Fruit, such as Mr. Hovey's description of the Concord Grape, "A New Apple," "Sweet Apples," "Fine Pears," "Fig Trees," "Cranberries on Upland," "Tolman's Sweeting" "Apple Tree Borer," &c., and yet there is room for more articles beside these than I can profitably notice. I begin with—

"*Some Wants wanted by Farmers.*"—A pretty good article on a capital subject. Want of means, want of knowledge, want of interest or love of business discussed. To raise the "means" a mortgage is suggested. Mortgages! I have learned by experience to shudder at the mention of that word. How they sweep the board to pay the "interest, annually," and still hang over the old homestead, generation after generation—a smothering night-mare on enterprise, ambition, hope! Mr. French said, in an article published some months since, that New England farmers were more extravagant in buildings, furniture, dress, carriages, &c. for show, than any other people in the world. Retrench, here; keep a bare parlor, wear cheap clothes, ride in the old wagon, endure a "lean kitchen," sell a few acres,—anything, *before* a mortgage on the farm. Yet the lack of means is undoubtedly *the* want of New England farmers. Mr. J. J. Thomas, of New York, in an essay published some ten years ago, enumerates the items of stock, tools, labor, seeds, and the feed of animals, &c., (beside the support of the owner's family) required for the first year's satisfactory management of a hundred-acre farm, which foot up at $1,832 00. Besides paying for the farm, then, according to Mr. Thomas' estimate, almost two thousand dollars will be required the first year to enable the farmer to perform the different operations of his business in the best possible manner and at the best time. He also says, that in England a man who merely *rents* a farm there must have as large a capital as the man who buys and pays for a farm of equal size in the best parts of western New York, and that the great mistake of American farmers is in expending all their means for land, and thus have

nothing to *begin* the great work of farming with.

"*Hog-killing in Cincinnati.*"—A striking instance of the effect of capital and skill. In my neighborhood mechanics and small farmers pay the butcher one dollar for dressing a hog; in the Cincinnati establishment forty hogs are dressed a day to each man employed.

Questions by the Secretary of the Board of Agriculture.—Answers to these questions will enable the Secretary to make a valuable report, and those who want capital subjects to write upon will find in these questions appropriate texts for articles for the *Farmer*.

"*Gardens that never Fail,*" from drought, in Ohio, are those that are plowed or spaded deeply; so argue the Ohioans, this year.

"*Breaking Colts,*" is generally a troublesome and dangerous business. If the plan recommended here works well, those who have colts to manage will be likely to preserve the November *Farmer*, if all the other numbers are thrown away.

"*Maturing Plants.*"—A practical criticism on certain scientific theories, lately advanced in the *Farmer*.

"*Improving the Soil by Shade.*"—On this theory cellar bottoms ought to become rich, and apple tree roots in grass land ought to grow all the better for enjoying a shaded soil. Land covered for four years with brush two feet deep, especially such as would decay in half that time, or even land on which flax is spread merely to *rot*, might be improved thereby from the deposit of vegetable matter, and the disengagement of gases, consequent upon even partial decomposition, without giving any credit at all to "Shade." Though I have little faith that shade will ever be bagged up and sold at "fifty dollars a ton," as a fertilizer, yet I like to read what sensible men have to say on this, or any other "new theory,"—for it shows that they are *thinking*.

"*Another Specimen of Farming.*"—"Vermonter" here gives so attractive a picture of his farm and neighborhood, of his success and independence, that many readers of the *Farmer* will hope to hear from him again, and be informed more definitely of the location of his portion of Vermont. A detailed statement of his management, crops, sales, &c., will be interesting, partly from the fact that small farmers, being unwilling to contrast their humble doings with those "big stories" that abound in agricultural papers, very seldom furnish accounts of their operations for publication. Beside the $1500 purchase money, what amount of capital was required the first year to pay for your stock, implements, seeds, labor, keeping of animals, &c. Give us the items, will you?

"*Importation of Guano.*"—A memorial to Congress, for its influence to reduce the price of Guano.

"*The Curculio.*"—Experiments with lime, whale-oil soap, and a brood of chickens, to save plums from the curculio. I tried the chicken prescription, this year, with no success.

"*Remarks about raising Hops.*"—An article "true to its name."

"*Lightning Rods not Humbugs,*"—So argues Mr. Quimby, an old rod-builder.

"*State Almshouse.*"—Proves a bone of contention." Fair play is a jewel; but is it quite fair for one writer to represent another as saying, "an ample supply [of water] is expected from the wells that *are to be* dug—not from those they already have,"—when his words were, "they had a good supply of water at present, but were improving the wells, to have it more plentiful and of better quality?"

"*Hawaiian Agriculture.*"—An account of the progress of wheat-raising on these islands, which I notice for the purpose of quoting the remark of the writer, who has tried both climates, that the sons of New England "may well be thankful that they were born and cradled among her hills, instead of first breathing the balmy air of a southern climate."

"*How to save Top Onions.*"—By one who has "raised them over twenty years, and never failed." When so many people find it almost impossible to raise a few common onions in their old gardens, why are not the top onions more generally cultivated?

"*Domestic Guano.*"—If ten millions of dollars are paid out of the United States annually for imported guano, is it not time for farmers to commence the manufacture of domestic guano, if, as this article says, every family of four persons may make a ton, by saving what is now thrown away?

"*Buckwheat.*"—The increased cultivation of this grain recommended, because improved mills for grinding and hulling it have been introduced.

"*The Drought.*"—Among the many accounts of the past dry summer, I notice one in which the writer says,—"The moral of the dry spell is, to plow deep and cultivate *moist* land." I believe so, too; and cannot help inquiring what bearing this experience has upon the book-farming theory of "thorough draining," so often urged upon the farmers of this country! A READER.

Winchester, Nov., 1854.

For the New England Farmer.

PATENT CIDER MILLS.

MR. EDITOR:—Some short time since, thinking that the farming community might be benefited by a few words of caution before purchasing a cider-mill, called, I think, "Hickok's Patent," I addressed a few lines to the *Ploughman*, stating my objections, but which the Editor did not think proper to put into his paper. I cannot see what objection there could have been to what I wrote, unless the interest of the *Ploughman* is on the side of the "mills," and those farmers who would otherwise have purchased might have delayed doing so from what was said in regard to them. The substance of what I wrote was this:—That the mill was very far from being what it should be as yet;—that as the mill now is, it was nearly impossible to make it work with the ordinary cider apples as they are brought to be made up. I had no doubt but what two men might possibly make two barrels of cider in a day, provided the apples were all perfectly sound and free from rot; but it is well known that this is far from being the case as the apples are brought to the mills to be ground. I do not hesitate to say, from what I have seen in regard to the operations of two of

the mills in this town, that two men cannot possibly make *three* barrels of cider a day with the mill with the ordinary apples that cider is generally made from. Where they are unusually rotten the mill will not work at all, and by dint of great patience in clearing the grinding part I do not deny but what some little progress may be made.

He who doubts this has only to give the machine a fair trial to be satisfied of the truth of what I say. In my article to the *Ploughman*, I suggested that the inventor should contrive a way to have the grinding knives operate perpendicularly, instead of as at present, to obviate this objection—and also to have the press tub a little larger, which could not add very much if anything to its present expense.

At the present time it is very far from what is generally wanted by the farmers who have over five barrels of cider to make. And a very little alteration in its grinding gear is all that is wanted to make it perfect. KING OAK HILL, M. D.

Nov. 7, 1854.

For the New England Farmer.

PERFECT MANURES.

BY DOCT. JOSEPH REYNOLDS.

What constitutes a perfect manure? Manures differ in their composition. One kind is valuable for its humus-forming properties; another for the properties that contribute mainly to the growth of stalks, leaves and flowers; another for those elements that are essential to the formation of seeds, grains, &c. It is often said of certain kinds of manure, that they do not hold out through the season. The plant will start well and grow for a time, but does not mature much grain or fruit. It is said the manure is used up, or it has not strength enough to carry the plant through. It may be true, sometimes, that a manure putrifies so rapidly, that its nutritive elements are all given off before the plant has gone through its several stages of growth. But I suppose the above complaint is made of manure when it is deficient in those elements which the plant requires in its seed-forming stage. It has not in it a sufficient supply of those elements that mainly contribute to the construction of the grain and fruit. What, then, is a perfect manure? That which the plant requires during every period of its growth and maturity. The liquid excrement of animals yields a large proportion of nitrogen, potash and soda. These elements contribute especially to the growth of leaves and stalks. The solid excrement is rich in seed-forming elements, as phosphoric acid, lime and magnesia, and these elements are developed more slowly than those in the liquid excrement.

Now it will be readily perceived that neither of these is, by itself, a perfect manure. If you use the liquid alone, you will say that it does not hold out through the season; although it may give you a large growth of stalk and leaf, it will not give a full growth of grain and seeds. If you use the solid alone, you will complain that your plants grow slowly and are small, even though what grain they do yield may be of good quality. The most perfect manure is that which results from the combination of these two excrements in the most intimate manner possible. Other substances may be added to this compound, for the purpose of absorbing the one, or of more readily pulverizing the other; or substances may be added which are supposed to be wanting in the soil to which it is proposed to apply the mixture, as sand and plaster when it is to be applied to a peaty soil, or mud when it is to be applied to a sandy soil.

When these materials are placed in a mass and kept moist, a process soon commences called putrefactive fermentation. By this process, several chemical results are brought about. The first is the evolution of several elementary substances, and the second their combination into new compounds, of a highly important character. By the putrefactive process, carbon, nitrogen, hydrogen and oxygen, are set at liberty from the compounds in which they previously existed. The oxygen and carbon, having a strong affinity for each other, combine and form carbonic acid. The nitrogen and hydrogen form ammonia, and this, when formed, combines with carbonic acid, forming carbonate of ammonia. Where the air is freely admitted, a large portion of these elementary gasses pass off as they are evolved, without forming the unions above indicated, and are thus lost. When the putrifying mass becomes saturated by the compound gasses above mentioned—carbonic acid and ammonia—these also pass off into the air and are lost. As these are of immense value to vegetation, they should be retained if possible. The most effectual mode of retaining them is to sprinkle the compost heap, when it begins to throw off a strong odor, with sulphuric acid and water, three or four pounds to a barrel of water. This should be repeated as often as necessary. A solution of sulphate of iron, or common copperas, is the next best means. If the manure is to be applied to trees, it is probably better than the uncombined acid. Sulphate of lime, or plaster, is useful for the same end. I do not think plaster as useful as some have represented it in this respect. It consists of an acid combined with an alkali, for which it has a strong affinity. If you would divorce this acid from the base, to which it is already married, in order that it may form a new union, you must present a base for which it has a stronger attraction. Potash and soda will attract the various acids from lime, but ammonia will not do this, except under peculiar circumstances. I suppose plaster acts mostly by absorbing the fluids, and thereby stopping the putrefactive process for a time, rather than by giving up its acid to be combined with ammonia.

When a solution of sulphuric acid, or of sulphate of iron is sprinkled upon the compost heap, a sulphate of ammonia is formed, which is but slightly volatile. The sulphate of ammonia thus retained in the mass, is taken up by the rootlets of plants, and carried into the sap vessels, where it is decomposed, and furnishes to their formative organs sulphur, oxygen, nitrogen and hydrogen, which are the ultimate elements of which this salt is composed. But these elements are not all which vegetables require. They require carbon, which, in the form of carbonic acid, abounds in manure—iron, manganese, potash, soda, lime, and silex. As a general rule, potash, soda and lime, should not be mixed with the compost heap, but should be applied to the soil sep-

arately, either in solution or in powder. If applied to the compost heap, they rapidly decompose the compounds of ammonia, and permit it to escape. These alkalies should never be mixed with guano, for the same reason. Plaster is less objectionable for the reason given above, viz. that it is not readily decomposed by ammonia.

Concord, 1854. J. R.

REMARKS.—This report was made to the Concord Farmers' Club, last winter, and belongs to the transactions of that time. It was mislaid by us and forgotten.

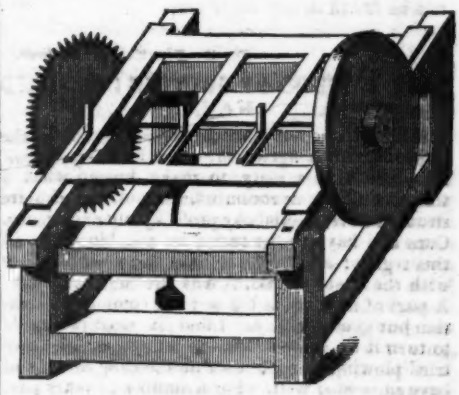
GYPSUM.

Many theories have been started by speculative philosophers to account for the stimulant effects of gypsum upon the vegetable system. Formerly, the opinion was almost universal that it operated only as a stimulant—exciting the parts, and inducing a more rapid and copious appropriation of the various elementary matters taken up in a state of solution from the soil. Professor LIEBIG, however, in one of his recent works, has presented a beautiful solution of its action on soils. The carbonate of ammonia, which is known to be extant in rain water, and a most salutary and energetic agent in effecting the development of vegetables, is, according to his theory, attracted and decomposed by gypsum, and soluble sulphate of ammonia and carbonate of lime formed. As this salt of ammonia possesses no volubility, it is, of necessity, retained in the soil, and economized for the use and increment of plants. Both the above named salts, however, operate advantageously upon the original *humus* of the soil, and by a specific action, tend to advance its preparation as a food for plants.

We have often spoke of this subject before, but introduce it again to the notice of the reader, believing that everything which is known in relation to the action of this useful mineral, when applied as a manurial agent, will ultimately tend to the advancement and prosperity of the farming art. That gypsum is capable, under certain circumstances, of producing very marked results, is what no candid observer will deny. On clayey loams, as a top-dressing for grass-land, it is highly esteemed, and is probably an efficient and economical manure.

QUINCES.—This fruit is scarce and dear in this city. The best sell for $6 a hundred. For a bushel of very ordinary quality we paid $2,50. Now can any one tell us why such prices should prevail? If not, we will. It is because the farmers of the whole region around New York are the most perverse, obstinate followers in the footsteps of their illustrious predecessors, who never thought of the necessity or advantage of planting more than three quince bushes, which stood, yes, stand still, and have stood for half a century, producing just fruit enough to serve the wants of the family "to flavor the apple sauce." They have never thought of such a thing as planting a quince orchard, of the best variety of fruit that can be obtained, and cultivating it with care as a crop for profit. We have heard of but one man who pursued this course, and we are told that he received last year fourteen hundred dollars for the produce of, we think, three acres, which was more than he received for the saleable produce of all the rest of the farm.—*N. Y. Tribune.*

REMARKS.—In Boston, quinces are neither scarce nor high in price, nor have they been for several years. They are selling now, Oct. 27, at $1.50 per bushel. We think there are about as many grown now as there is a market for, at a fair profit. They can only be used as a preserve, and in quite limited quantities, to flavor other fruits.



EMERY'S SAW MILL.

A few weeks since we gave an engraving and description of Hickok's Cider Mill. To examine one of them for ten minutes satisfies any one of their great value over the old mills. A person who purchased one, informs us that he took it into his orchard, and made ten barrels of cider with it, alone, the first day he used it! It is only necessary that many machines should be known to ensure their being used.

This week we give another mill, and for a very different purpose. It is a saw mill. It is made strong, with joint bolts, patent metallic boxes, large and long shaft and heavy fly-wheel, and may be used with the Single or Double Horse Power. For Single Power, a 22 inch saw is used; for a Double Power, a 54 inch saw; and with the One Horse Power and two men, from 10 to 15 cords of hard wood may be cut twice in two per day, or as much soft wood as they can handle.

The same mill, by changing saws, can be used for slitting boards and plank for fencing, &c.

APPLES.—The crop of apples in New England this year, as it has been every even year since the

Baldwin came into general cultivation, is too large for the demand, and the price has been drooping, until they are now dull in Boston at $1.25a$1.50 per barrel, and may be had delivered at the railroad depots, 30 or 40 miles from Boston, at 35 to 40 cents a bushel, or $1 without the barrel, the cost of the barrel and of transportation bringing them to about $1.25 to $1.50 on the railroad.

REMARKS.—We copy the above from the *Boston Daily Mail*. Good Baldwin apples are selling in Quincy market, to-day, Nov. 10, for $1.50 to 2.00 a barrel, and the demand is equal to the supply. The sale is quick for good, well selected apples. We hope our friends will not find discouragement in this report. They can raise apples at a profit at $1.00, barrel not included; and when they are lower than this, they can feed them to cattle and swine with as much profit as can be found in any other crop.

For the New England Farmer.

BEST METHOD OF GETTING CORN AND HAY.

MR. EDITOR:—Feeling deeply interested in the improvement of agriculture, I esteem it a privilege, as well as a duty, to make known what I think to be an improvement, that others who are situated on like soils may profit by my experience. Corn and hay are the two most reliable crops in this region; and how to obtain the most of them with the least expense, is what we ought to study. A part of my land is too wet for common cultivation but good for hay. I find it most profitable to turn it up once in four or five years. I have tried plowing in September and seeding down, and have succeeded well. For a number of years past I have practiced taking off one crop of corn, and then seeding down to grass, which I think is much more profitable. My method has been to turn up the land in the fall, laying it off in beds about two rods wide, and put the manure in compact heaps near enough to transport it by hand. So that I need no team but a horse to go upon it in the spring; by this means I can plant about as early as common land. As soon as the corn is hard enough to ripen on the stalk, I cut it up, carry it off and stock it and sow the land with grass seed immediately, always spreading on a small coat of compost manure. By this method I have never failed of getting a good crop of corn, and can get the land smooth and suitable for good mowing with little labor. By this management I think I can obtain as much corn from my low land as from my high, and keep it in good order for hay. THOMAS HASKELL.

Gloucester, October 31, 1854.

REMARKS.—We are glad to find the mode of husbandry detailed above gaining new advocates. Corn, hay and fruits are our staple crops, and how to secure the most of each permanently, at the least cost, is a question worthy of thought, and experiment. There is no doubt in our mind, that much of our mowing lands remain too long in grass. The objection urged, that it costs too much to *break them up*, is not a valid one, because, if often plowed, one pair of oxen would perform the labor and there would be little more expense than in plowing an acre of stubble land. There would be an extra cost of grass seed, but the increased crop, we think, would be more than sufficient to offset the unusual expense.

DEEP PLOWING AND PLASTERING.—The *Michigan Farmer* gives the following experiment of Mr. Millspaugh, of Van Buren, in that State, as "a fair dollar and cent operation." With a heavy team, he plowed a twelve-acre lot *twelve inches* deep—sowed to oats, and seeded at the same time with three and a half bushels of clover seed. Soon after he sowed sixty pounds per acre of plaster. The crop of oats was good. He cut, the next year, two tons of clover per acre, and in the fall gathered clover seed worth one hundred and sixty-four dollars. That is

24 tons of hay, at $6 per ton,	$144,00
Clover seed,	164,00
Total,	308,00

From this the labor is to be deducted, which is not given, but which would doubtless leave a "fair" profit as one year's proceeds of 12 acres, for which deep plowing, liberal seeding and plaster, are to have the chief credit.—*Country Gentleman.*

WHAT BOSTON HAS DONE FOR AGRICULTURE.—The attention of the reader is called to a capital article with the above title, in another column, which we take from the *Boston Post*.

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